



# **Key Findings for:** Perception Study on Air Quality in 17 Cities



## Objectives of the Study

To find out the level of awareness (cause, effect, precaution & solution) among people on the issue of air pollution.

**Broadly the survey tried to capture the following;**

- If citizens are aware about the health impacts of polluted air.
- If citizens are aware of the actions being taken by the government and civil society organisations to mitigate it.
- Awareness levels about the source of pollution in their city.
- Amongst the issues that affect them (social or environmental), where does air pollution figure on that list.
- What would trigger them to take personal action.
- What kind/ level of actions would they like to take on air pollution.
- Understand their current media source of information about Air Pollution.
- Who do they think should be responsible to take actions to reduce pollution in their city.

## Scope of the Study

- Development of survey questionnaire and FGD guideline.
- Recruitment and orientation of the survey teams.
- On-line and Off-line data collection.
- Data processing, validation and analysis.
- Submission of draft & final report along with final power point presentation.
- Cleaned data set in excel as well as SPSS.

## Methodology (Cont..)

- **Quantitative data collection**

- ✓ On-line

- ✓ Off-line

- **Qualitative data collection**

- ✓ Focus Group Discussions (FGDs)

# Methodology

- Constituted a core team (domain expert, M&E expert and researchers) to carry out the assignment
- Meeting with ASAR team to understand the study requirement and to arrive at the final indicators.
- Literature review of various published reports, articles and other documents about air pollution.
- Draft questionnaire designed and shared with ASAR team.
- Draft questionnaire pre-tested in Delhi and feedback incorporated in final questionnaire.
- The survey questionnaire was broadly divided into five sections;
  - ✓ **Section A:** Demographic Profile of the Respondent
  - ✓ **Section B:** Air Pollution: Level of Awareness among the Respondents
  - ✓ **Section C:** Air Pollution: Causes, Effects & Precautions
  - ✓ **Section D:** Air Pollution: Steps taken to control and improve the air quality
  - ✓ **Section E:** Overall feedback & suggestion

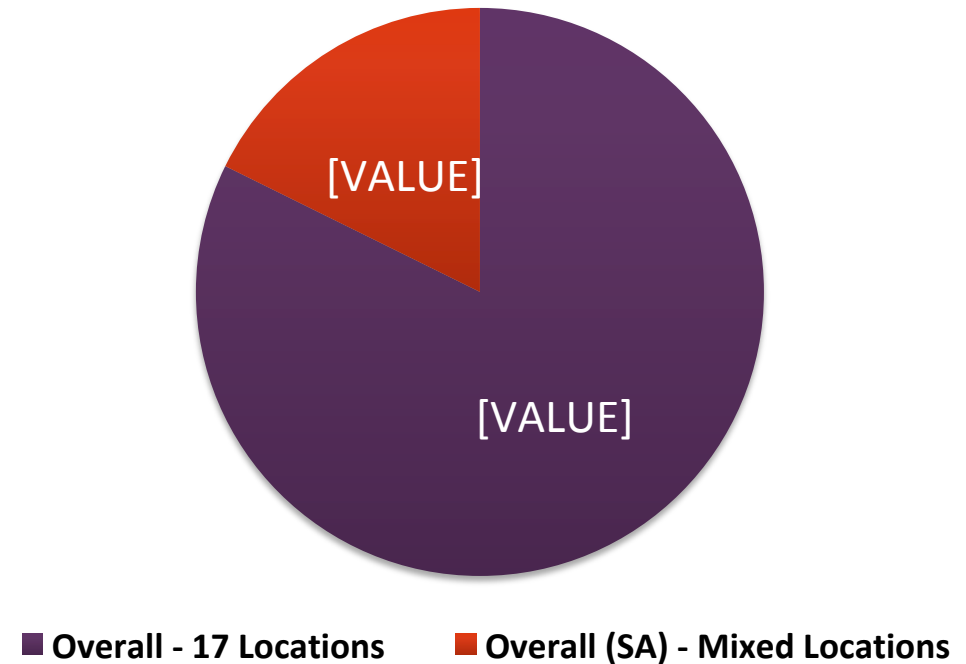
## Execution

- **Quantitative data collection**
- **On-line Survey:**
  - ✓ On-line on SurveyMonkey
  - ✓ The survey was open for a period of one month.
  - ✓ Number of responses received – 2400
- **Off-line Survey:**
  - ✓ Parallel team deployed in all the 17 cities.
  - ✓ Team comprised of a Sr. Researchers and two Research Associates for each city.
  - ✓ Number of filled-in forms – 2600
- **Total Respondents (On-line & Off-line): 5000**
- Parallel on-line survey was also conducted by ASAR through their Support Agencies and sample of **1075** was achieved.

## Target Group

- ☐ Students
- ☐ Working professionals
- ☐ Health professionals
- ☐ Senior citizens
- ☐ Young mothers
- ☐ School principals/teachers
- ☐ Self-employed
- ☐ Homemakers

## Overall Sample (Number)

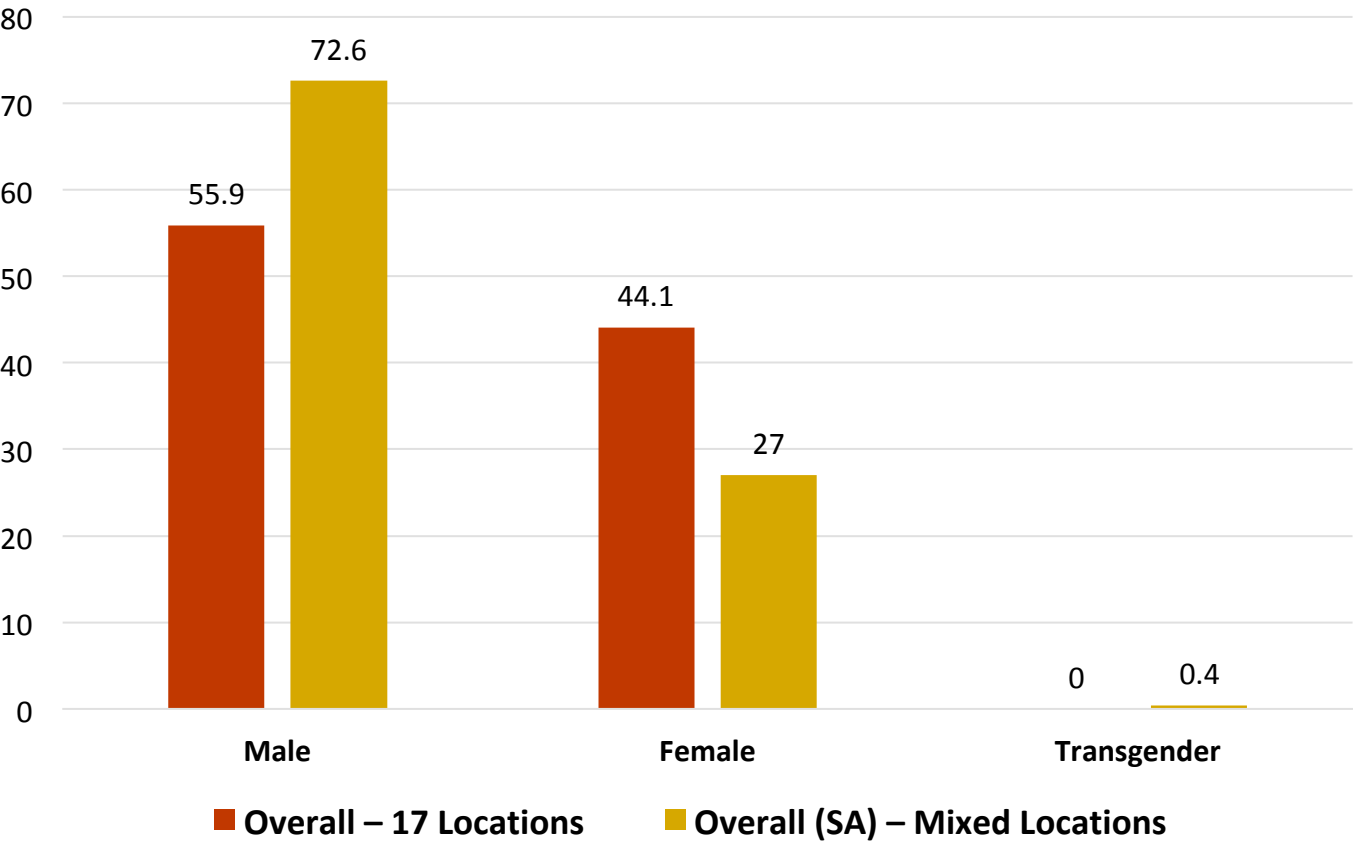


# Characteristics of the Respondents



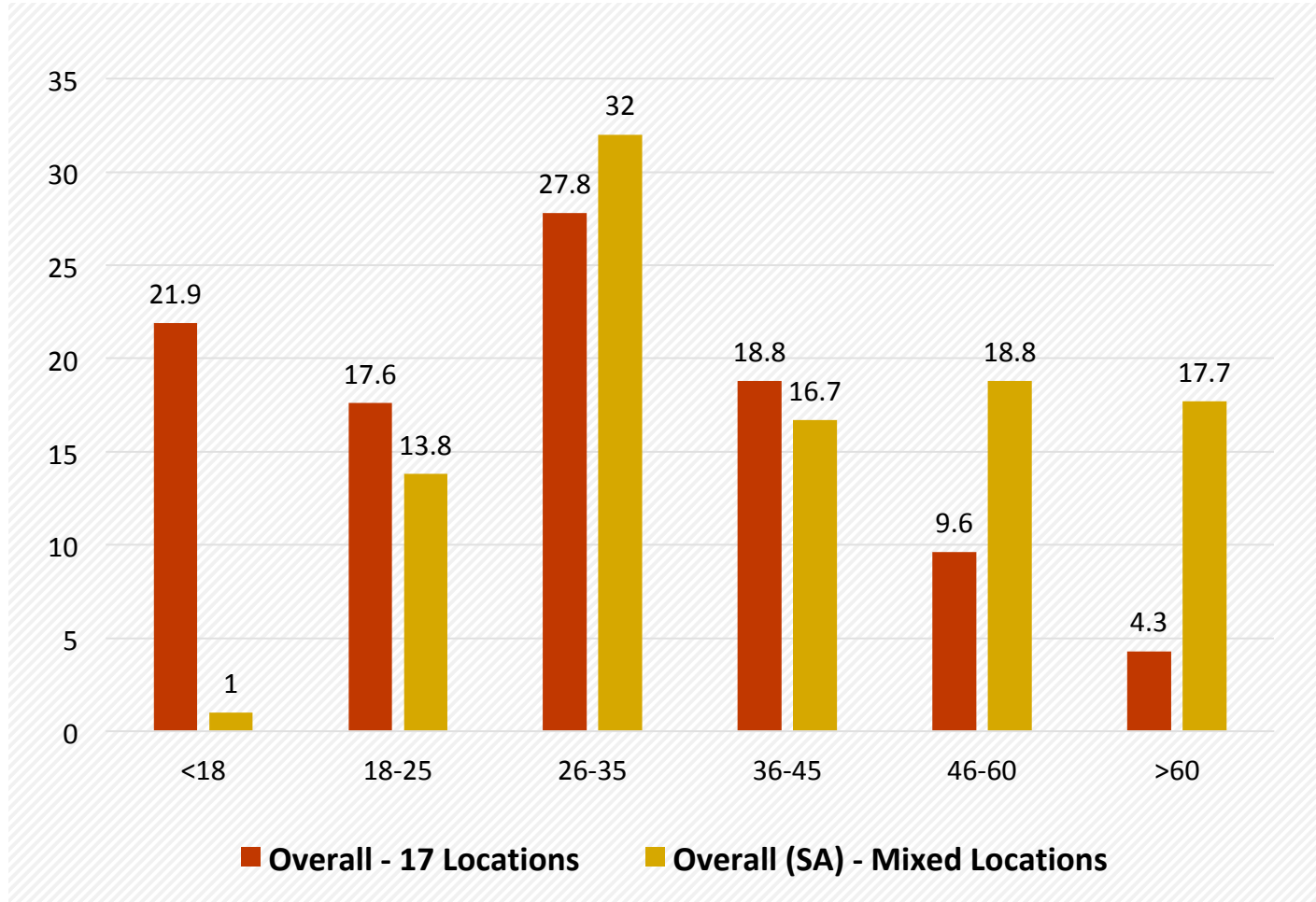


# Gender Representation



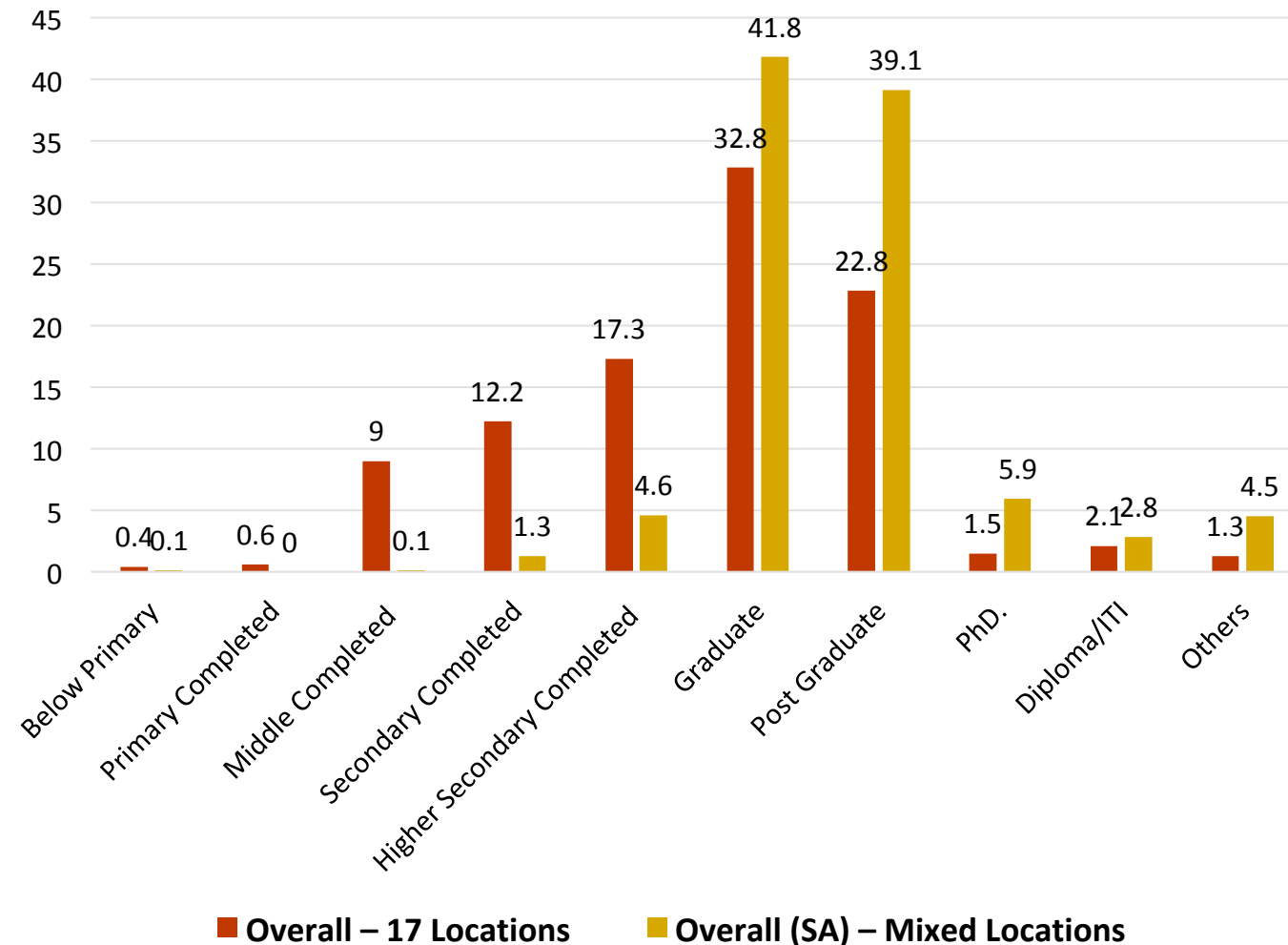
- Male respondents: 56.0 percent (SA-72.6 percent)
- Female respondents: 44.0 percent (SA – 27 percent).
- Transgenders represented 0.4% (4 nos.) only in case of support agencies.

## Age-group



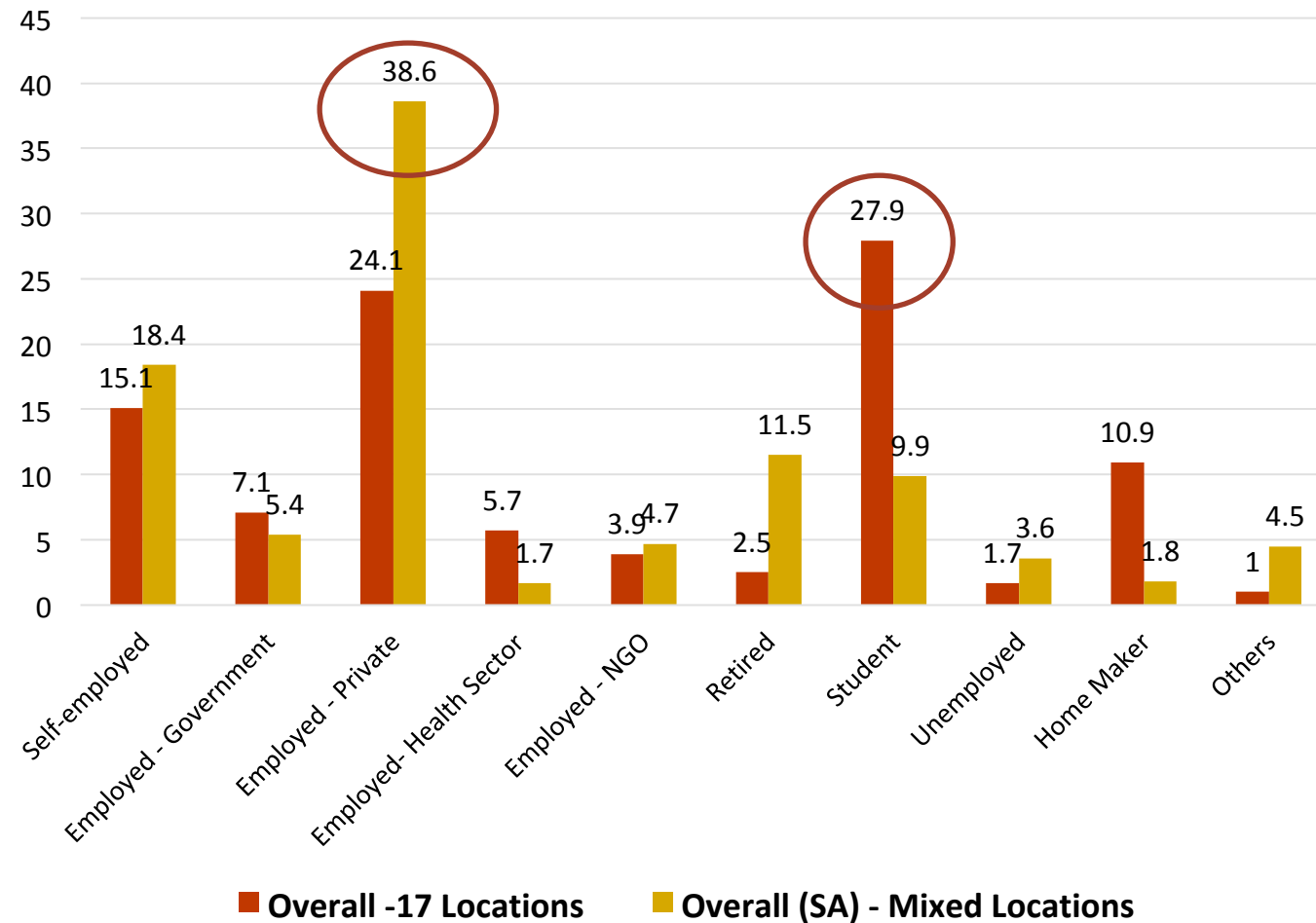
- Maximum respondents belonged to the age-group of 26 - 35 years i.e. 28.0 percent (SA: 32.0 percent) followed by 22.0 percent (SA: 1.0 percent) in the age group of less than 18 years.
- Senior citizens (60 years & above) constituted 4 percent of the sample.

## Educational Status



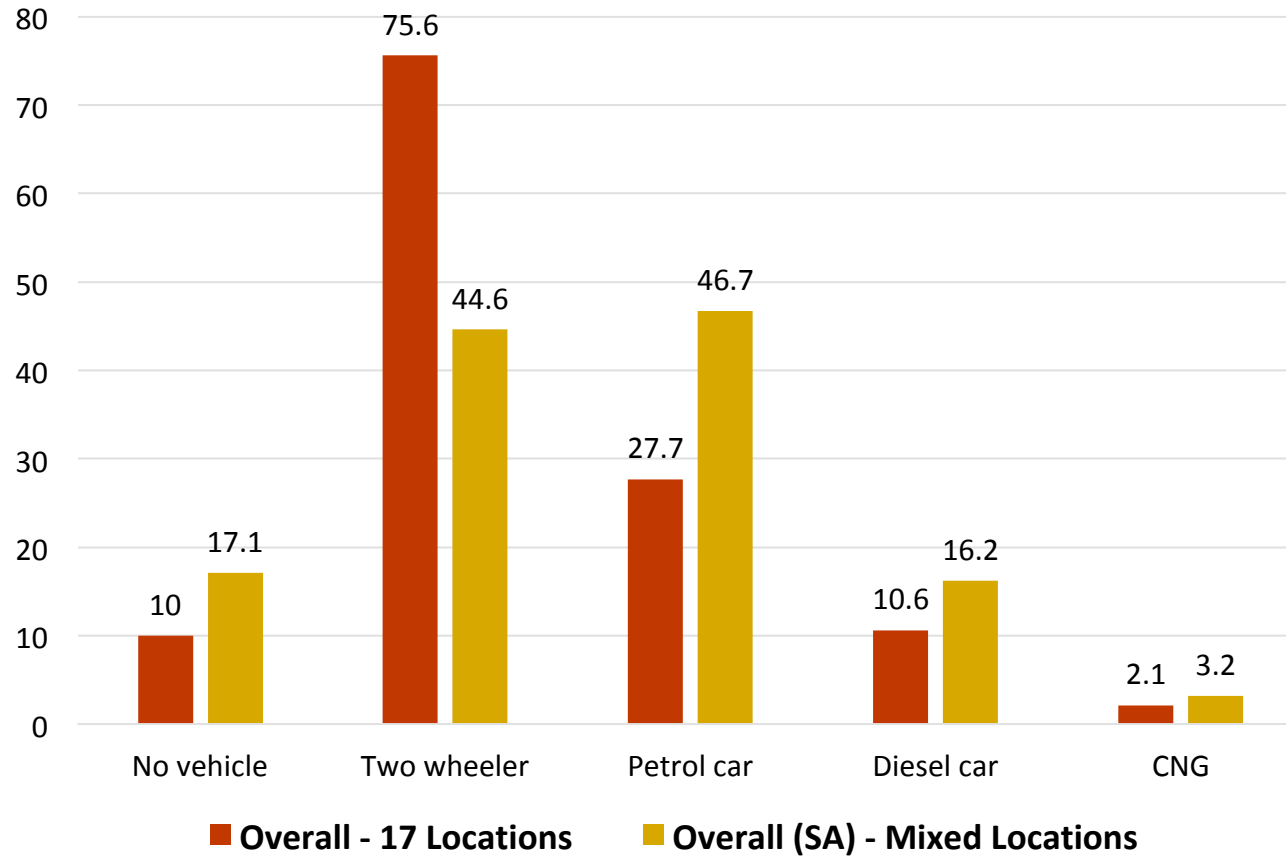
- More than 32.0 percent (SA: 42 percent) respondents were graduates, while postgraduates constituted 23.0 percent (SA: 39.0 percent) of the sample.
- Those who completed middle school constituted 9.0 percent of the total sample.
- Around 2.0 percent of the sample were doctorates (SA: 6.0 percent).

# Employment Status



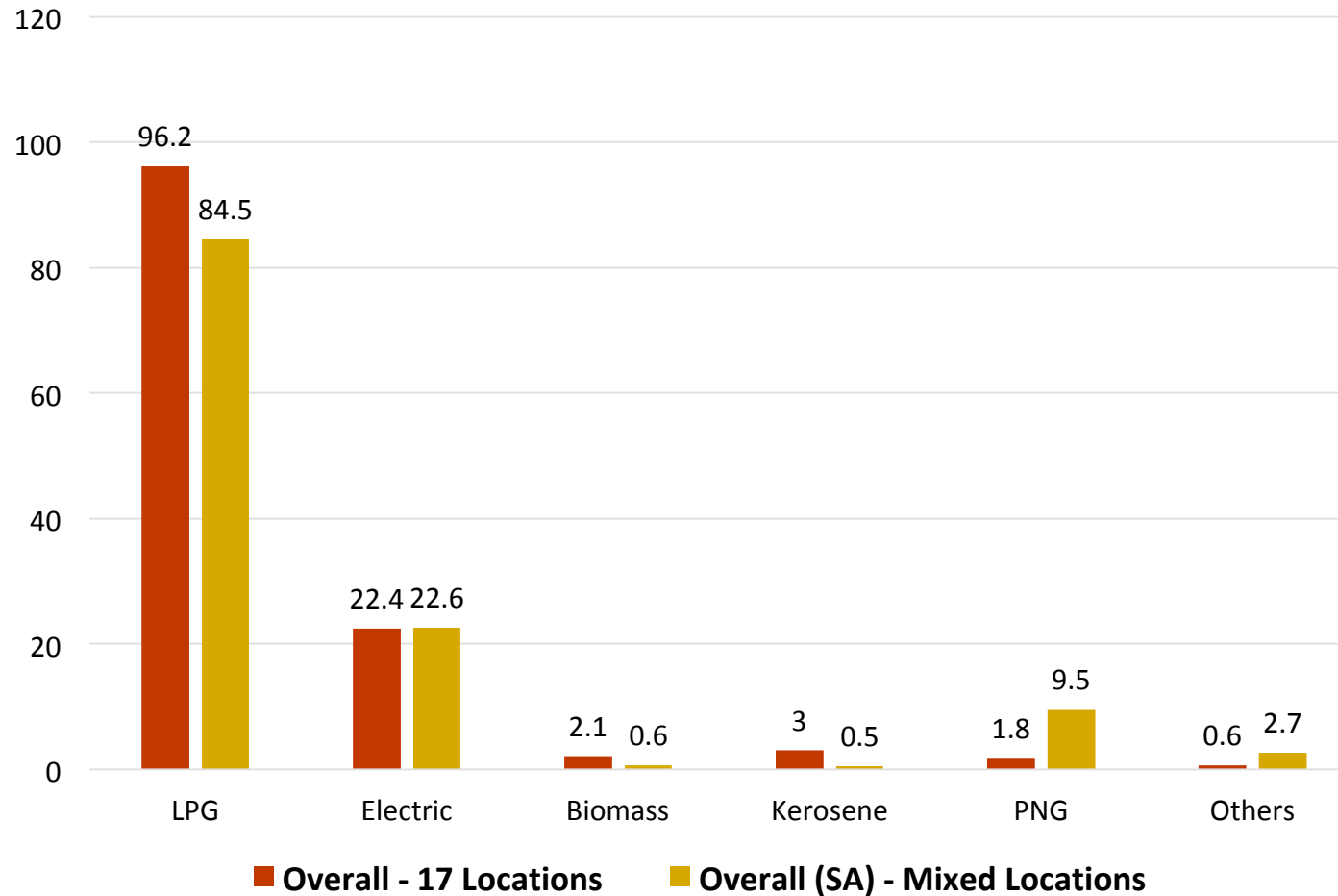
- Students constituted 28.0 percent of the sample (SA:9.9 percent) while 24.0 percent (SA: 39.0 percent) were engaged in private sector jobs.
- Self-employed respondents constituted 15.0 per cent (SA: 18.0 percent) of the sample followed by 11.0 percent (SA: 2.0 percent) who were homemakers.
- Only 7% respondents held Government jobs (SA: 5.0 percent).

## Type of vehicle owned by you/your family? (Multiple responses)



- Respondents who did not possess any vehicles: 10.0% (SA: 17%).
- Respondents owning two-wheelers: 75.6% (SA: 44.6%)
- Respondents owning petrol cars: 27.7% (46.7%).
- Respondents owning diesel cars: 10.6% (SA: 16.2%).

## Which kind of cooking fuel do you use in your household? (Multiple responses)



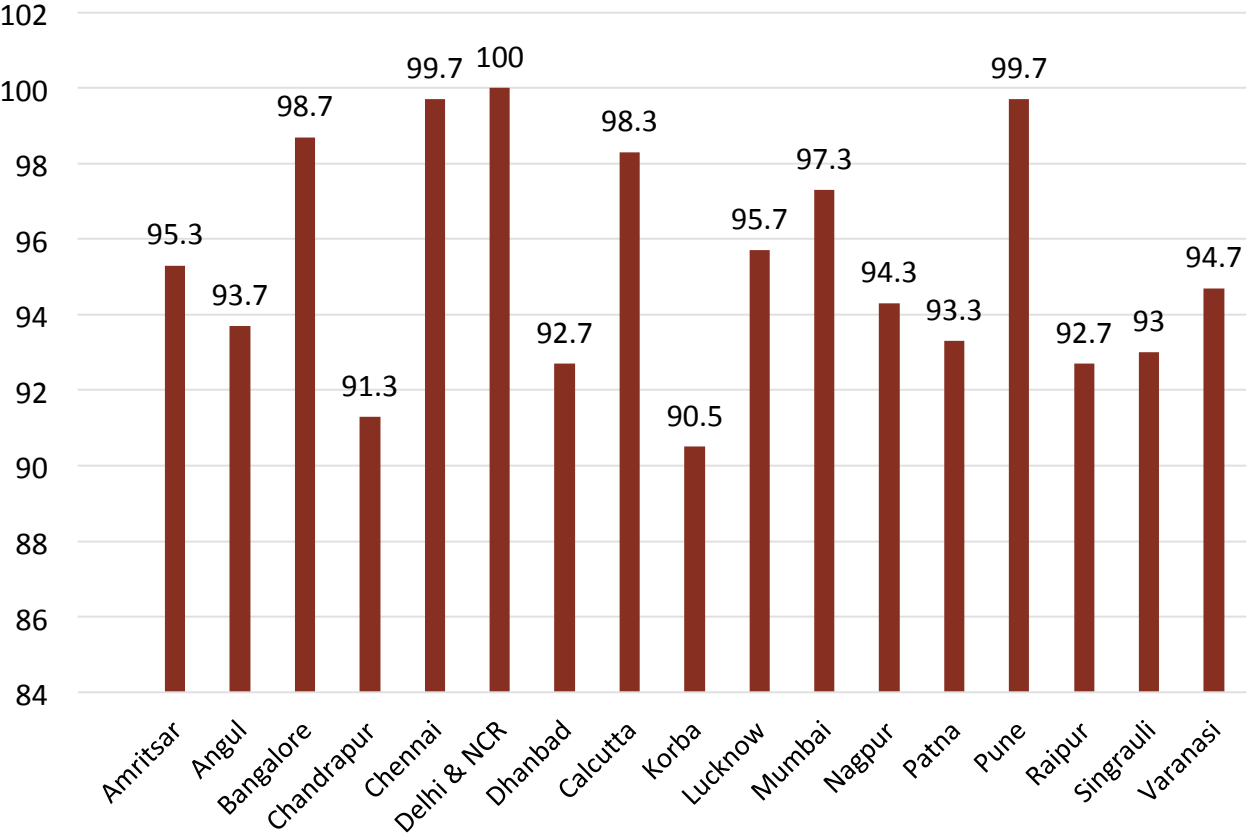
- Respondents who used LPG as fuel exceeded 95.0% (SA: 85.0%).
- Those having electric stoves formed 22.0 % of the sample.
- PNG users constituted only 2.0% (10.0%) of the total sample

# Awareness about Air Pollution

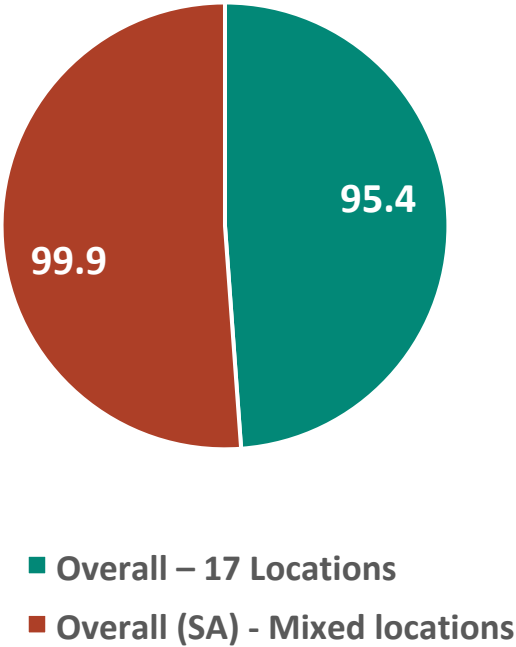


# Have you heard about air pollution?

*Location wise*

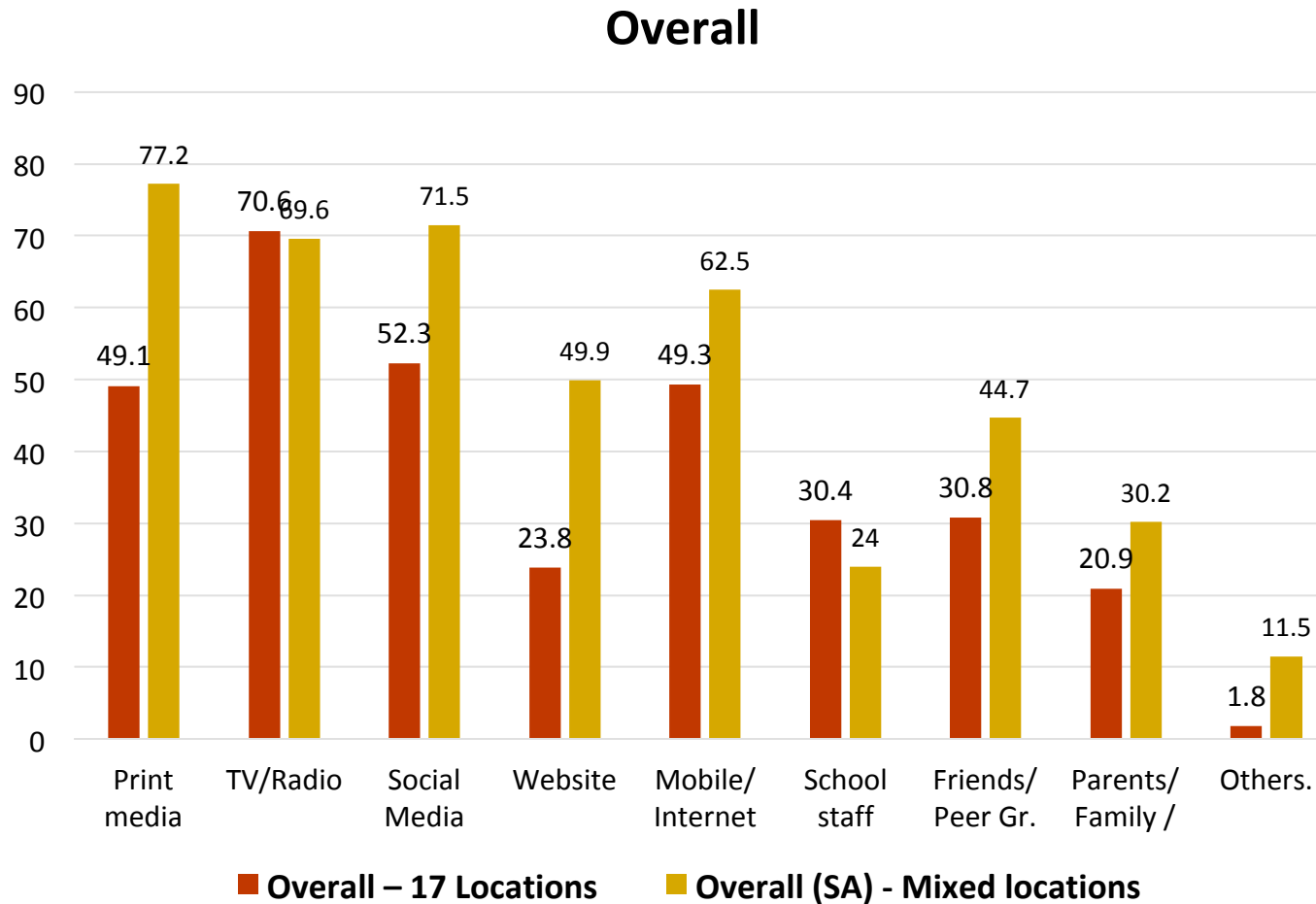


*Overall*





## If yes, what is the source of your awareness? (Multiple responses)



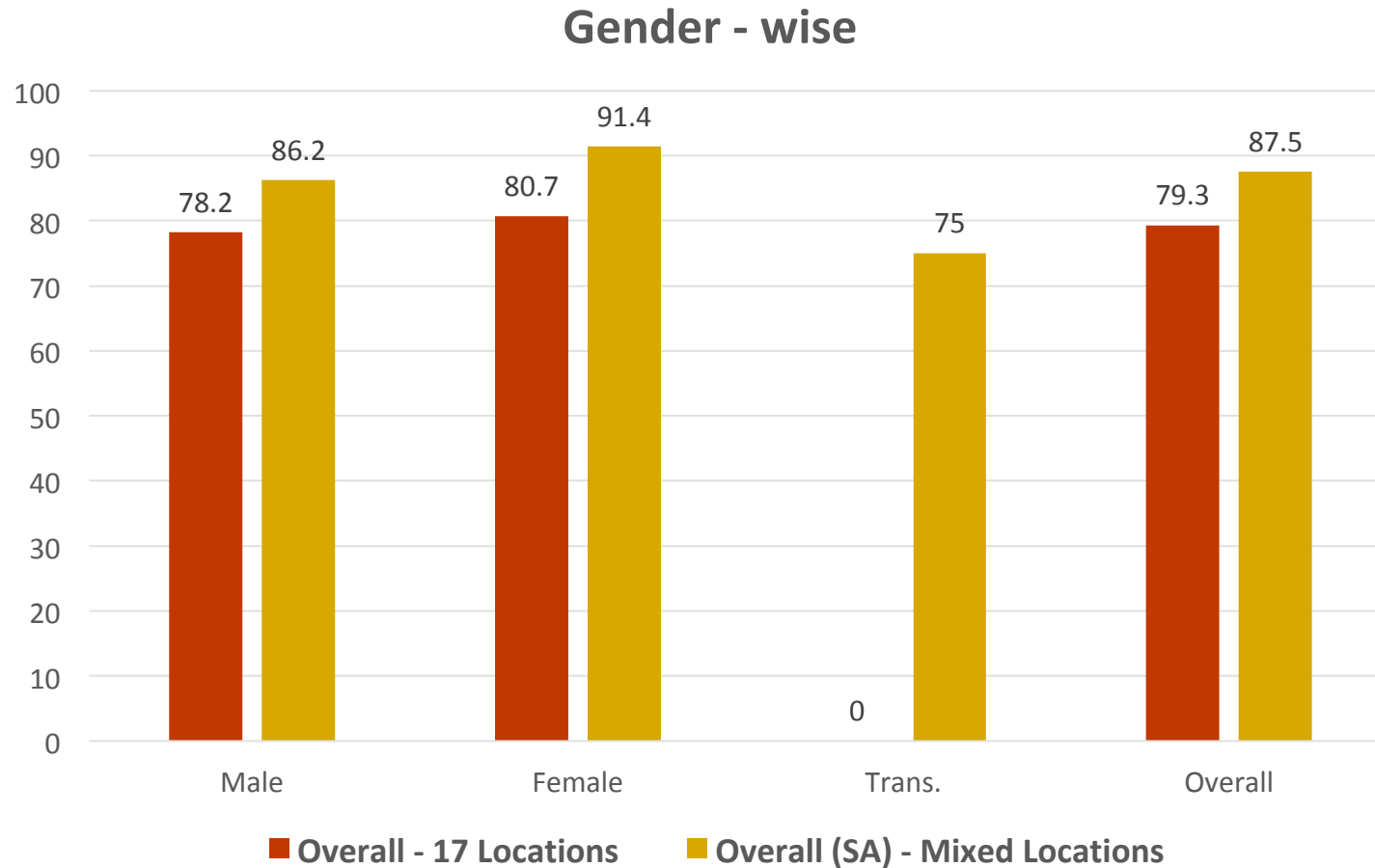
- Of the respondents who had heard about air pollution, 71.0 % of them were aware through TV/Radio, followed by Social media (52 %) and print media (49%).
- However, in case of respondents of the Support agencies, the major source of awareness was print media (77.2%) followed by social media (71.5%).

# If yes, what is the source of your awareness? (Multiple responses)

*Location wise*

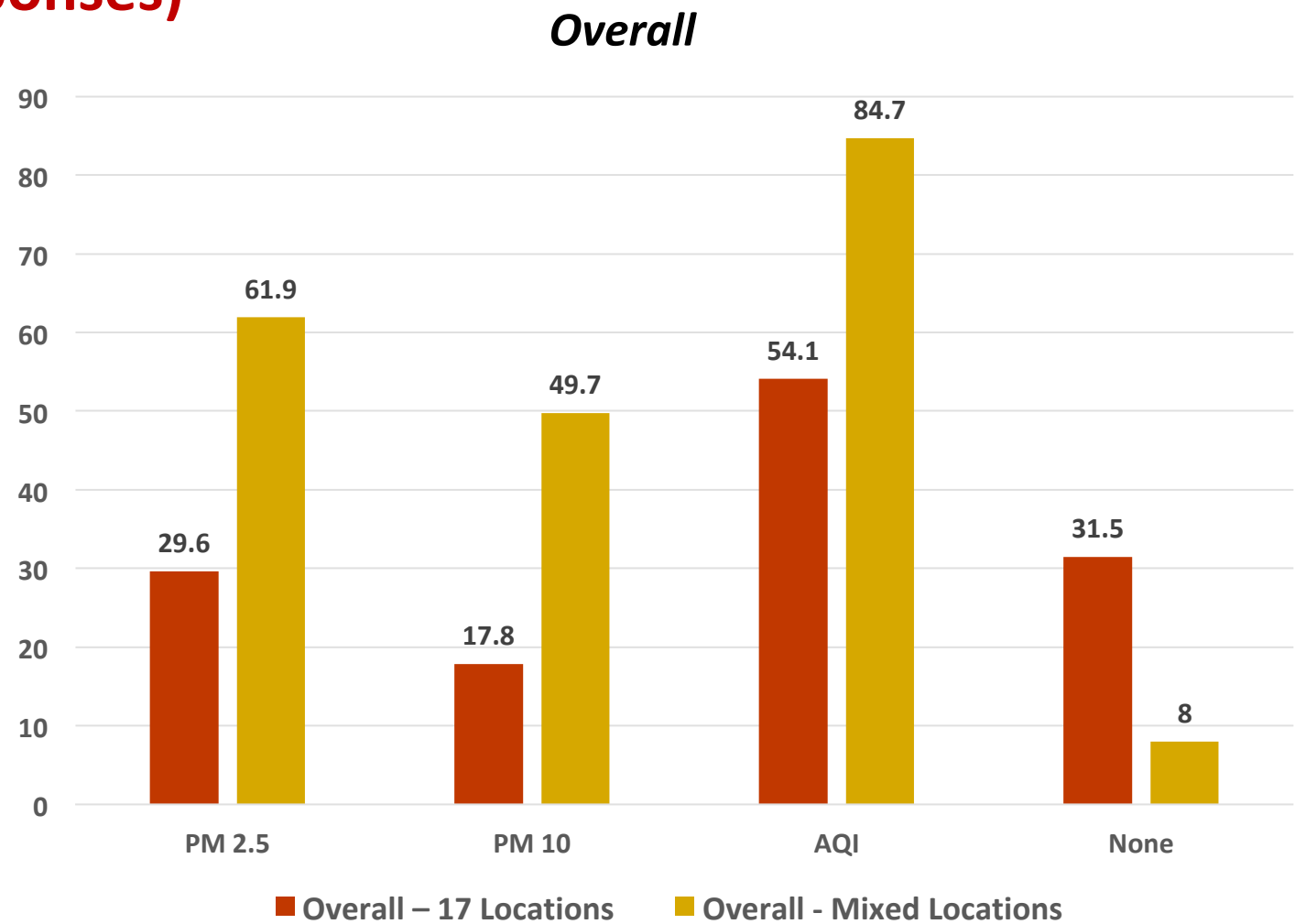
Location	Source of Awareness (% of respondents)																							
	Print media	TV/Radio	Social Media	Website	Mobile/Internet	School staff	Friends/Peer	Gr. Parents/Family	Others.															
Amritsar	36.4	59.1	51.7	11.5	61.2	20.6	23.1	11.5	1.4															
Angul	63.7	90.0	39.5	5.7	16.7	23.1	42.7	23.5	0.4															
Bangalore	46.3	53.4	47.0	22.6	42.2	42.9	32.1	17.6	5.1															
Chandrapur	9.5	49.3	51.5	38.7	48.2	33.2	27.4	18.6	0.4															
Chennai	24.4	73.6	61.9	19.7	53.5	19.7	21.4	16.1	3.0															
Delhi & NCR	71.7	75.3	73.7	29.7	67.7	20.0	43.0	24.0	2.3															
Dhanbad	23.4	43.9	41.0	21.2	48.9	21.6	28.8	3.2	0.4															
Calcutta	52.9	89.5	60.7	24.7	45.1	20.3	32.2	29.2	0.7															
Korba	70.2	93.9	40.9	8.8	70.2	34.3	8.8	23.8	4.4															
Lucknow	65.2	70.4	30.3	19.5	28.2	19.2	10.8	6.6	0.3															
Mumbai	50.0	64.4	52.1	26.7	48.3	46.2	28.4	22.6	3.4															
Nagpur	33.6	61.1	54.4	32.2	41.0	40.6	26.1	17.0	3.2															
Patna	71.4	85.0	73.2	46.1	66.1	36.8	55.7	43.6	1.1															
Pune	61.9	68.9	65.9	42.1	61.9	55.2	44.5	44.8	3.7															
Raipur	78.4	85.6	50.4	14.7	50.7	33.1	62.6	42.4	0.0															
Singrauli	44.8	72.4	24.0	12.2	30.1	26.2	18.3	8.6	1.1															
Varanasi	37.7	72.5	64.8	22.2	63.4	25.4	10.6	1.8	0.0															

# Do you discuss about air pollution/air quality at your home?



- More females (80.7%) than males (78.2%) reportedly discussed about air pollution at home.
- Same trend was also observed in case of the respondents from the Support agencies.

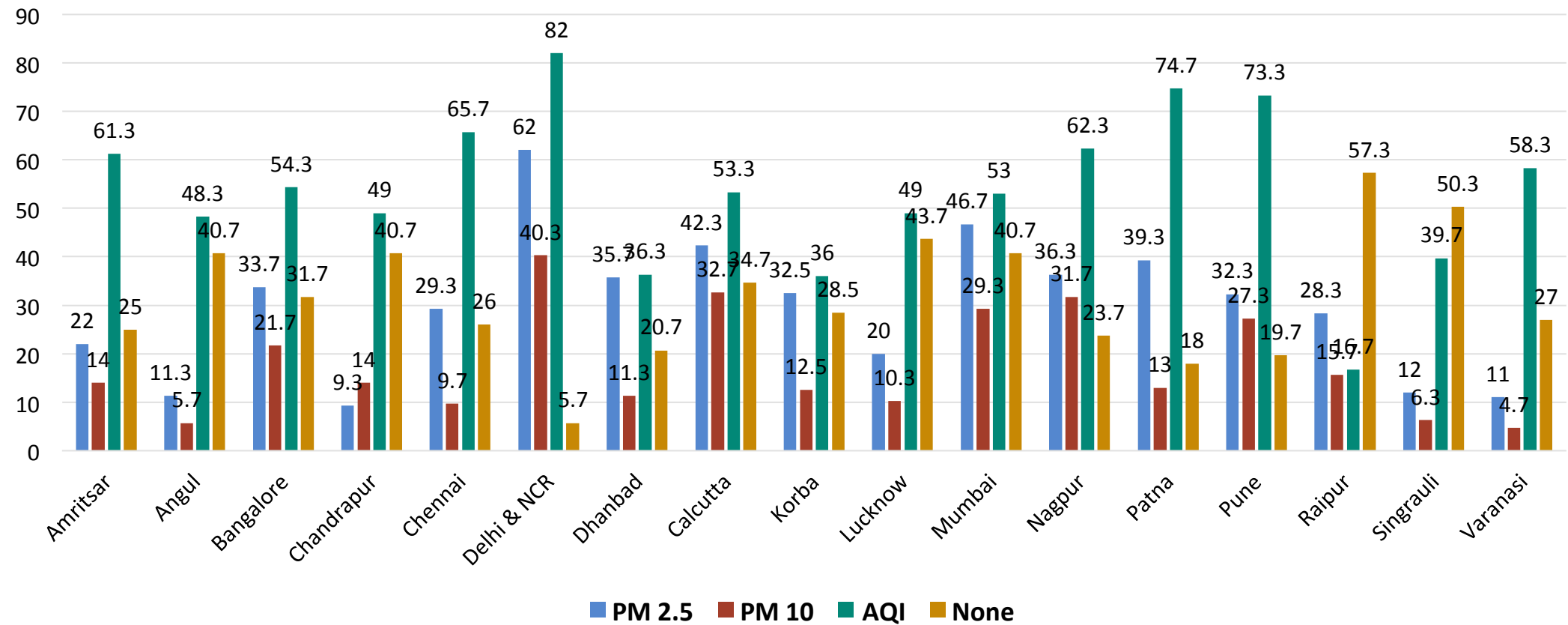
# Which of the following words/phrases have you heard of? (Multiple responses)



- Awareness of the respondents about PM 10 was the lowest i.e. 17.8% as compared to PM 2.5 (29.6 %) and AQI (54.1%).
- In comparison, the awareness levels of respondents from the SAs was much higher.

# Which of the following words/phrases have you heard of? (Multiple responses)

*Location wise*



# Which of the following words/phrases have you heard of? (Multiple responses)

## Gender - wise

	Gender	Percentage of respondents stating awareness about			
		PM 2.5	PM 10	AQI	None
Overall – 17 Locations	Men	31.1	20.3	52.9	31.0
	Women	27.7	14.5	55.5	32.0
Overall (SA) - Mixed Locations	Men	64.5	52.9	84.1	7.4
	Women	54.1	41.0	86.2	9.7
	Trans.	100.0	50.0	100.0	0.0

- As compared to women, more men stated awareness about PM 2.5 & PM 10. However with regard to AQI, more women (55.5%) than men (52.9%) stated awareness.
- Among both men and women, respondents from the SAs had greater awareness as compared to neutral respondents.

# Which of the following words/phrases have you heard of? (Multiple responses)

		Age - group			
Age group		Percentage of respondents stating awareness about			
		PM 2.5	PM 10	AQI	None
Overall – 17 Locations	Below 18	16.3	11.7	49.4	39.1
	18 – 25 Years	32.6	18.3	60.2	24.9
	26 – 35 Years	34.3	20.8	55.2	27.9
	36 - 45 Years	34.9	19.1	54.3	29.9
	46 – 60 Years	34.3	23.4	54.8	31.6
	60 Years & above	21.0	8.9	43.5	49.1
Overall (SA) - Mixed locations	Below 18	45.5	54.5	81.8	18.2
	18 – 25 Years	65.5	52.0	89.2	6.8
	26 – 35 Years	60.2	48.5	83.4	9.0
	36 - 45 Years	60.0	47.2	88.3	7.2
	46 – 60 Years	63.4	52.0	82.2	5.0
	60 Years & above	63.2	49.5	83.2	10.5

# Which of the following words/phrases have you heard of? (Multiple responses)

*Education wise*

Educational status		Percentage of respondents stating awareness about			
		PM 2.5	PM 10	AQI	None
Overall – 17 Locations	Below Primary School	19.0	0.0	38.1	61.9
	Primary (Completed	9.4	6.3	15.6	78.1
	Middle (8 pass)	14.0	9.1	41.4	51.2
	Secondary (10 pass)	14.6	7.9	44.3	40.6
	Higher Secondary (12 pass)	19.0	9.5	45.3	38.5
	College level (Grad.)	30.5	18.3	57.8	27.4
	Post Graduate	51.1	31.1	65.5	18.6
	PhD	68.4	52.6	80.3	6.6
	Dip./ITI	13.2	9.4	51.9	39.6
	Others	12.7	14.3	52.4	28.6
Overall (SA) - Mixed locations	Below Primary School	0.0	0.0	100.0	0.0
	Primary (Completed	0.0	0.0	0.0	0.0
	Middle (8 pass)	0.0	0.0	0.0	100.0
	Secondary (10 pass)	42.9	35.7	85.7	14.3
	Higher Secondary (12 pass)	55.1	42.9	69.4	16.3
	College level (Grad.)	58.8	44.8	83.3	8.5
	Post Graduate	65.5	54.8	87.4	6.9
	PhD	76.2	69.8	90.5	0.0
	Dip./ITI	46.7	23.3	80.0	13.3
	Others	64.6	54.2	87.5	8.3

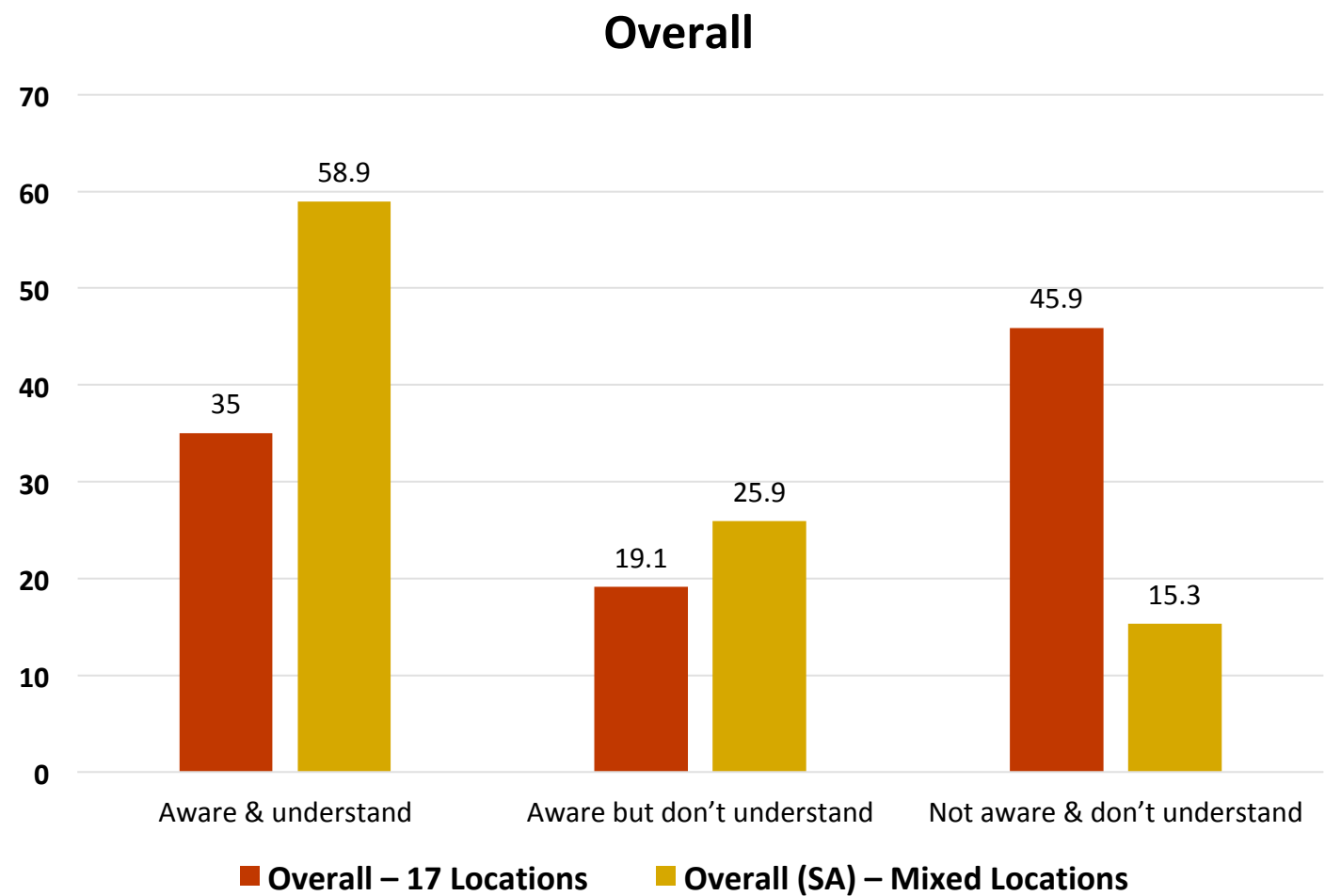


# Which of the following words/phrases have you heard of? (Multiple responses)

*Employment -wise*

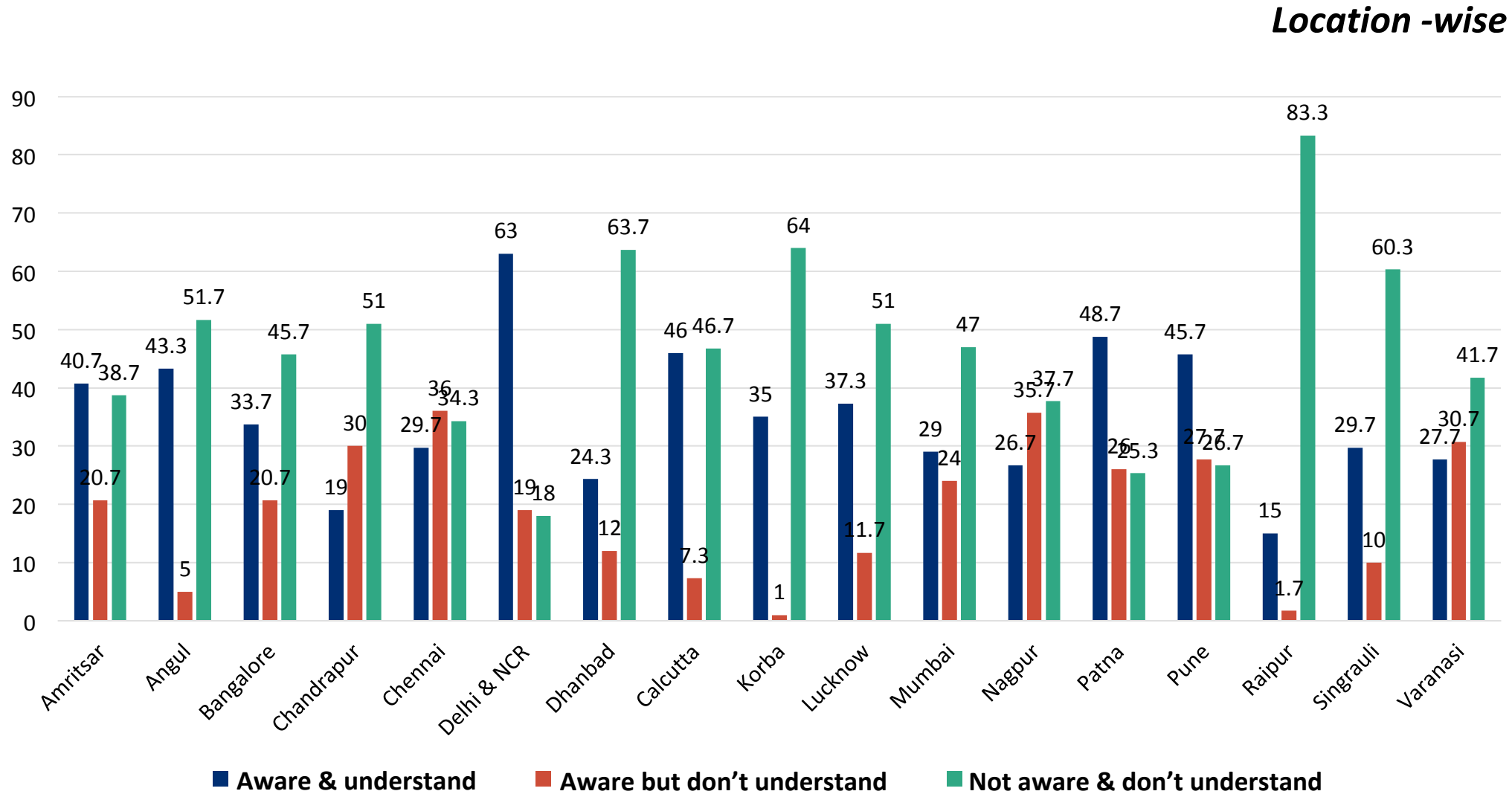
Employment status		Percentage of respondents stating awareness about			
		PM 2.5	PM 10	AQI	None
Overall – 17 Locations	Self-employed	29.5	17.0	44.6	35.4
	Employed- Government	50.4	31.2	62.6	17.6
	Employed- Private sector	38.1	23.5	60.0	24.6
	Employed- Health sector	32.9	19.1	52.7	30.4
	Employed- Non-Government sector	34.0	21.3	54.8	31.5
	Retired	24.6	13.5	54.8	37.3
	Student	19.6	13.5	53.6	35.3
	Unemployed	20.9	12.8	59.3	29.1
	Homemaker	21.9	9.5	52.8	37.8
	Others	33.3	3.9	17.6	52.9
Overall (SA) - Mixed locations	Self-employed	65.2	54.5	86.4	7.1
	Employed- Government	67.2	56.9	81.0	5.2
	Employed- Private sector	57.8	45.5	84.3	8.0
	Employed- Health sector	77.8	66.7	77.8	11.1
	Employed- Non-Government sector	74.0	50.0	84.0	10.0
	Retired	61.3	49.2	83.9	9.7
	Student	67.0	54.7	85.8	7.5
	Unemployed	51.3	43.6	92.3	7.7
	Homemaker	31.6	21.1	78.9	15.8
	Others	68.8	56.3	85.4	6.3

# Are you aware of and understand the relevance of the Air Quality Index (AQI)?



- Only 35% (SA: 58.9%) respondents stated that they are aware as well as understand the relevance of AQI.
- More than 45% (SA: 15.3%) respondents were not aware and neither understood the relevance of AQI.

# Are you aware of and understand the relevance of the Air Quality Index (AQI)?



# Are you aware of and understand the relevance of the Air Quality Index (AQI)?

*Gender - wise*

		Percentage of respondents stating		
		Aware & understand	Aware but don't understand	Not aware & don't understand
Overall – 17 Locations	Men	35.8	17.2	47.1
	Women	34.0	21.6	44.5
Overall (SA) – Mixed Locations	Men	58.0	26.1	15.9
	Women	61.0	25.2	13.8
	Trans.	75.0	25.0	0.0

# Are you aware of and understand the relevance of the Air Quality Index (AQI)?

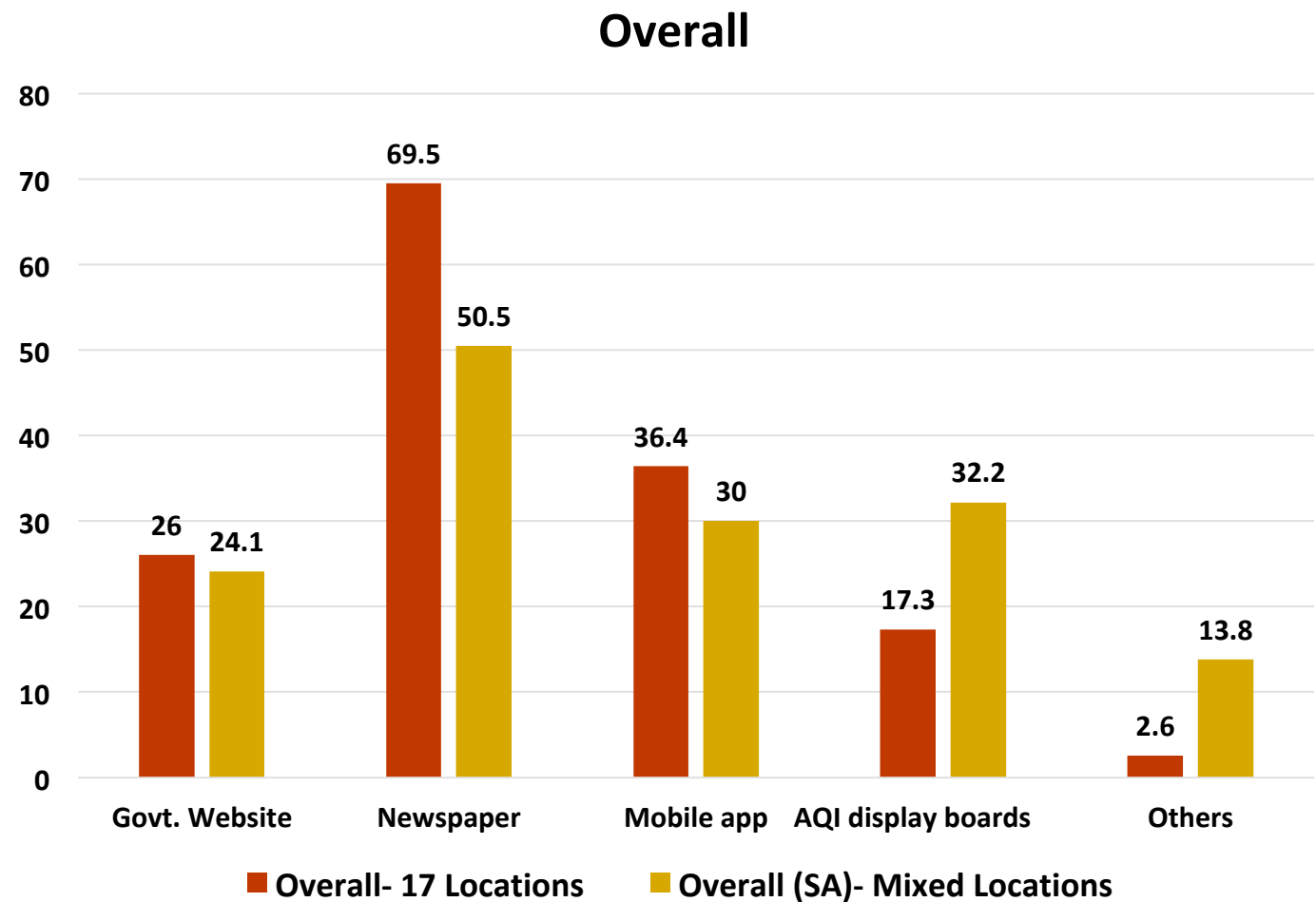
		Age group		
	Age group	Percentage of respondents stating		
		Aware & understand	Aware and don't understand	Not aware & don't understand
Overall – 17 Locations	Below 18	35.1	14.3	50.6
	18 – 25 Years	38.5	21.7	39.8
	26 – 35 Years	33.4	21.8	44.8
	36 - 45 Years	32.8	21.4	45.7
	46 – 60 Years	37.9	16.9	45.2
	60 Years & above	32.7	10.7	56.5
Overall (SA) – Mixed Locations	Below 18	45.5	36.4	18.2
	18 – 25 Years	65.5	23.6	10.8
	26 – 35 Years	55.5	27.9	16.6
	36 - 45 Years	60.0	28.3	11.7
	46 – 60 Years	54.0	28.2	17.8
	60 Years & above	64.7	18.4	16.8

# Are you aware of and understand the relevance of the Air Quality Index (AQI)?

## Employment wise

Employment status		Percentage of respondents stating		
		Aware & understand	Aware and don't understand	Not aware & don't understand
Overall – 17 Locations	Self-employed	28.7	15.9	55.4
	Employed- Government	44.8	17.8	37.4
	Employed- Private sector	36.8	23.1	40.0
	Employed- Health sector	32.2	20.5	47.3
	Employed- Non-Government sector	38.6	16.2	45.2
	Retired	43.7	11.1	45.2
	Student	36.5	17.0	46.4
	Unemployed	37.2	22.1	40.7
	Homemaker	29.3	23.6	47.2
	Others	9.8	7.8	82.4
Overall (SA) – Mixed Locations	Self-employed	61.6	24.7	13.6
	Employed- Government	58.6	22.4	19.0
	Employed- Private sector	55.9	28.4	15.7
	Employed- Health sector	66.7	11.1	22.2
	Employed- Non-Government sector	56.0	28.0	16.0
	Retired	58.9	25.0	16.1
	Student	62.3	23.6	14.2
	Unemployed	59.0	33.3	7.7
	Homemaker	36.8	42.1	21.1
	Others	35.0	19.4	45.6

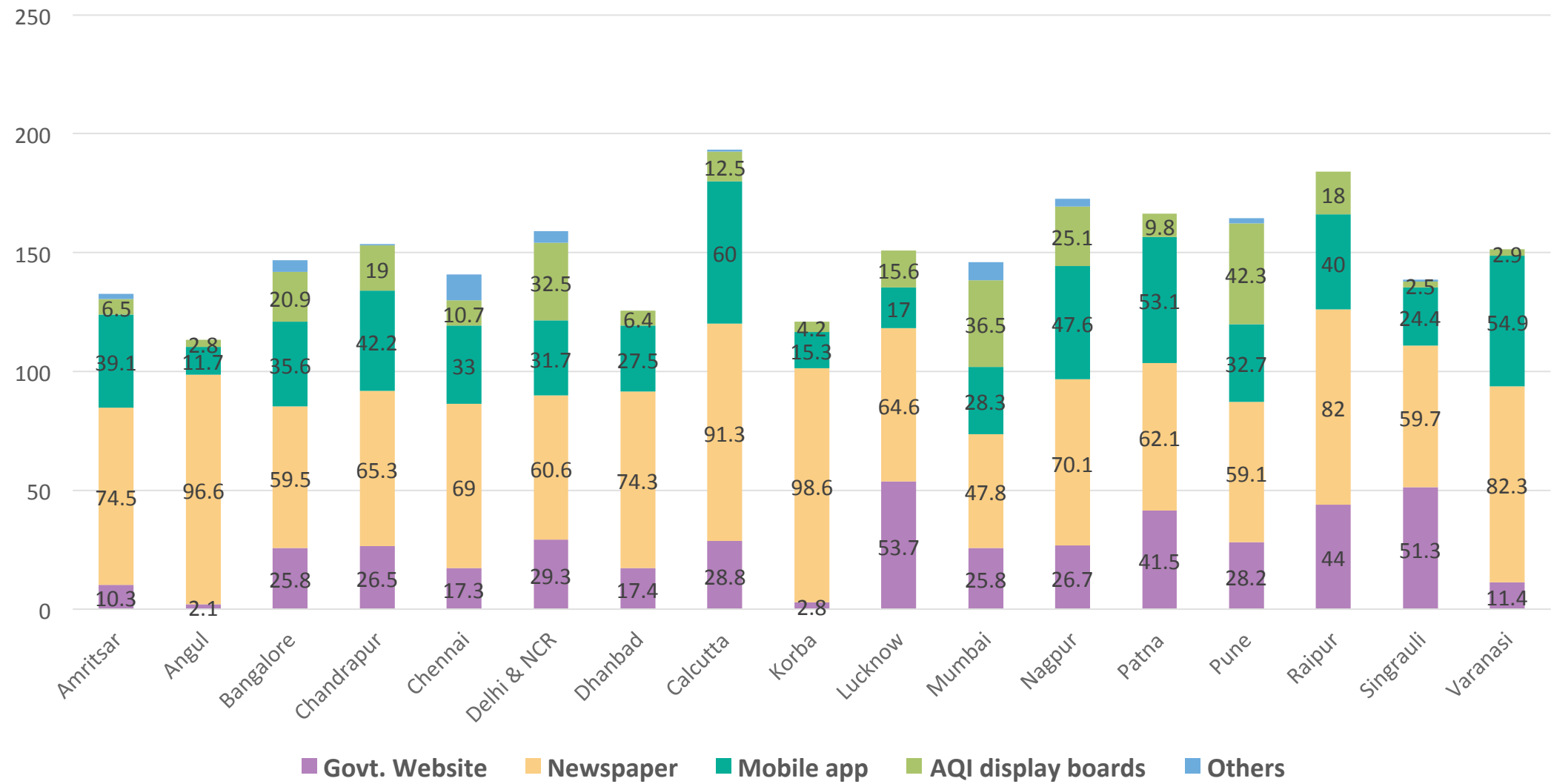
# Where do you find the most accurate AQI information of your city? (Multiple responses)



- Newspapers was the major source of awareness about AQI among maximum respondents (69.5%, SA: 50.5%).
- Only 17.3% respondents stated checking AQI display boards to get information about AQI. The corresponding figure for the respondents from SA was 32.2%.

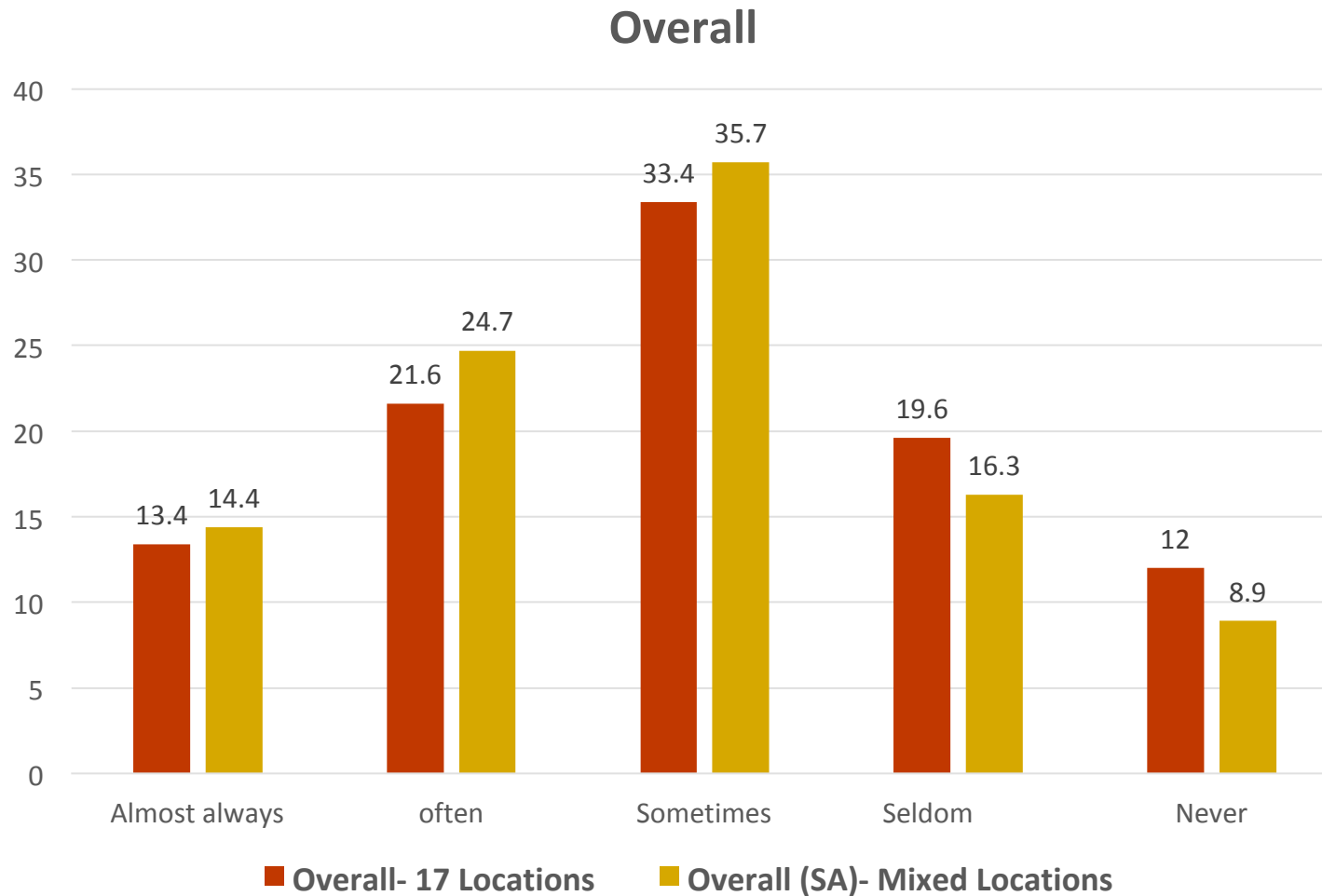
# Where do you find the most accurate AQI information of your city? (Multiple responses)

*Location wise*





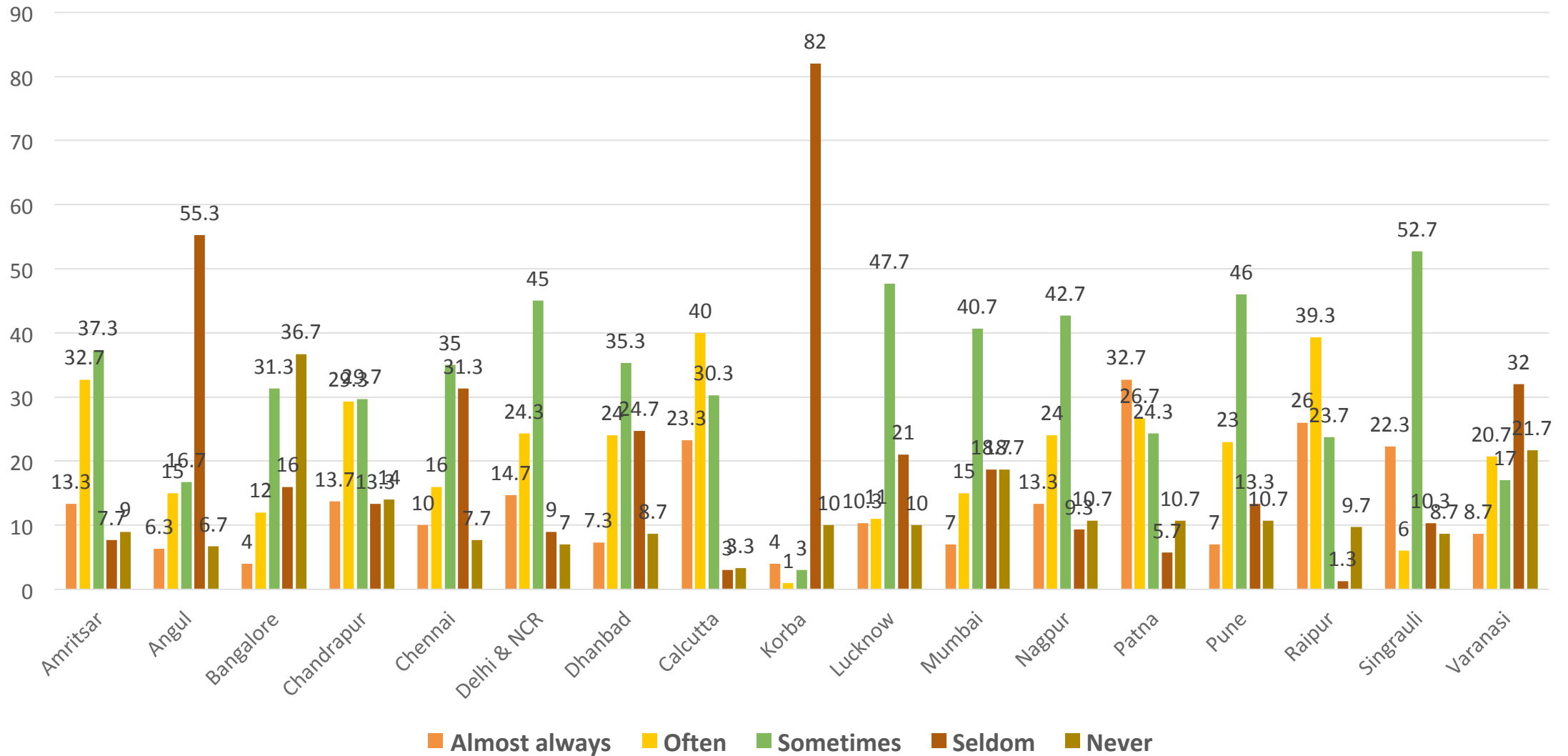
# How actively do you seek information about air pollution in your city?



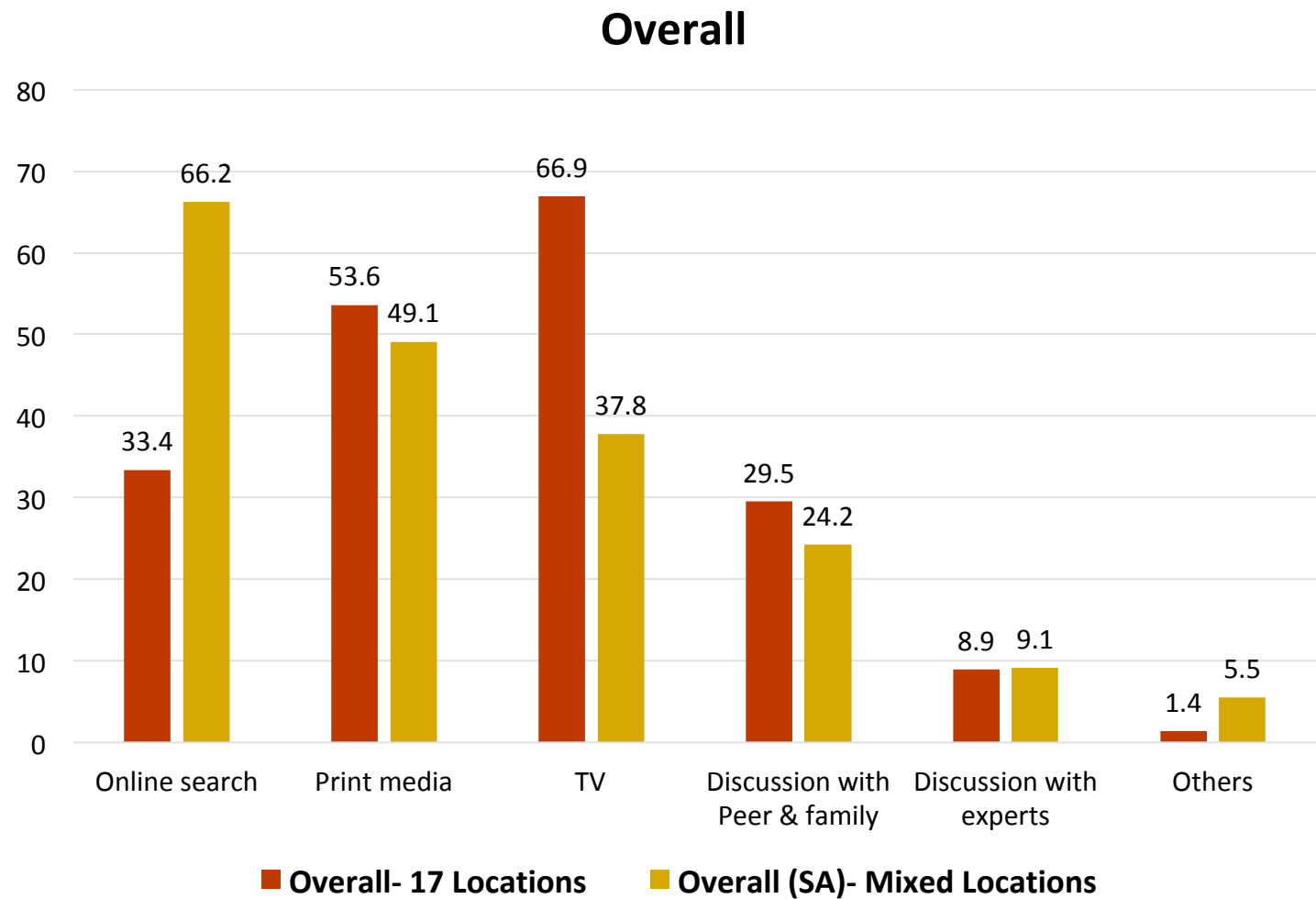
- Only 13.4% respondents (SA: 14.4%) stated seeking information about air pollution always.
- Around 12% (SA: 8.9%) respondents never tried to seek information about air pollution.

# How actively do you seek information about air pollution in your city?

*Location wise*



# How do you seek information regarding air pollution in your city? (Multiple responses)



- More than 66% respondents stated television as the main source of seeking information about air pollution.
- However, maximum respondents from the SA (66.2%) resorted to online searches to collect information about air pollution.

# How do you seek information regarding air pollution in your city? (Multiple responses)

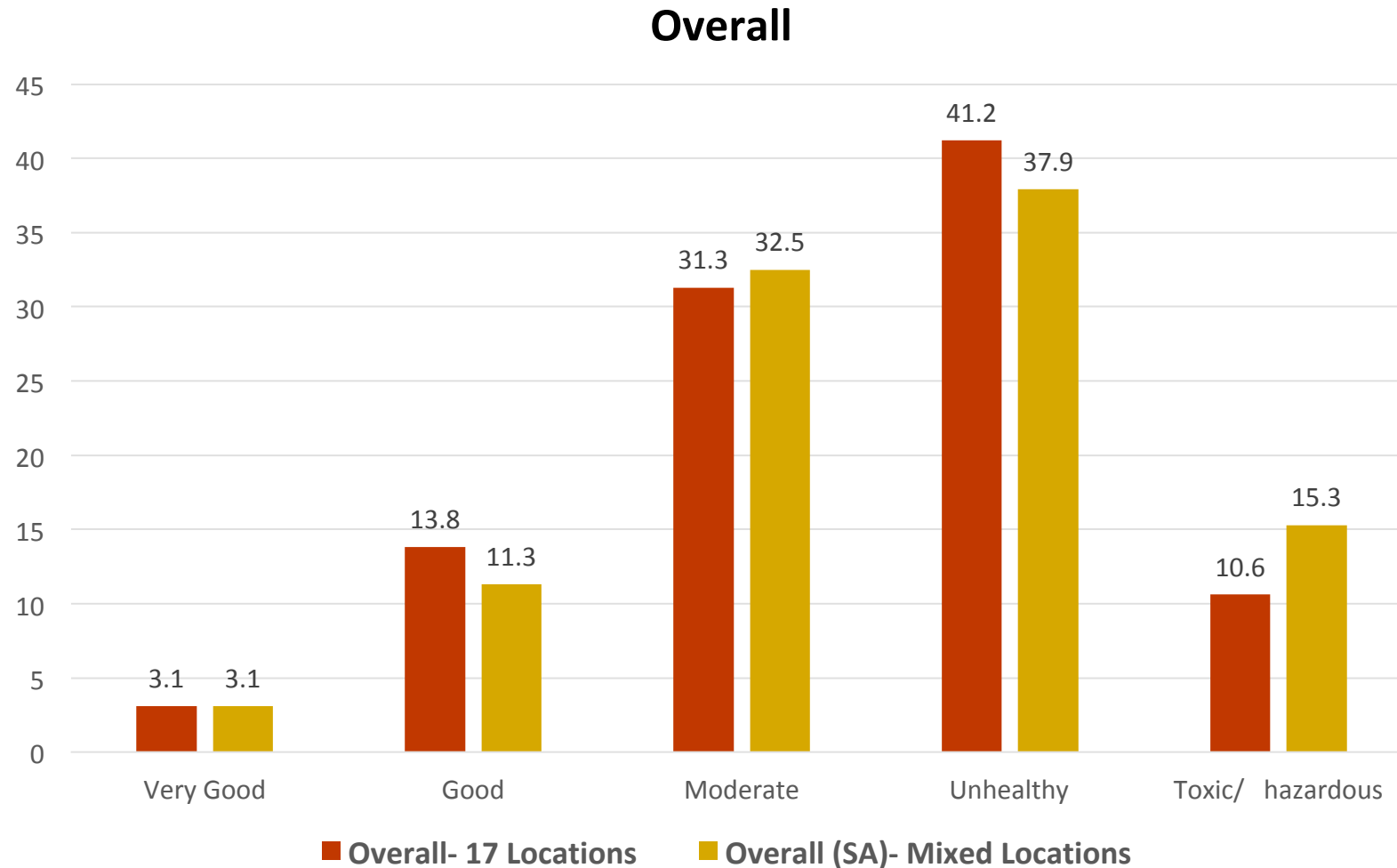
*Location-wise*

Location	Source of information (% of respondents)					
	Online search	Print media	TV	Discussion with Peer & family	Discussion with experts	Others
Amritsar	36.6	50.9	65.2	29.3	5.1	1.8
Angul	6.4	82.1	92.1	9.3	3.9	0.0
Bangalore	52.6	39.5	48.9	21.6	4.2	3.2
Chandrapur	18.2	32.9	57.4	41.9	17.4	0.4
Chennai	51.3	27.8	67.1	16.2	2.2	2.5
Delhi & NCR	55.9	48.0	54.8	31.5	4.3	1.1
Dhanbad	15.7	42.3	60.6	26.6	12.8	0.4
Calcutta	36.9	55.9	81.7	28.6	3.1	0.0
Korba	11.7	86.1	97.2	36.7	1.1	3.3
Lucknow	27.8	67.4	62.2	17.8	1.1	1.5
Mumbai	47.5	43.9	44.3	20.9	4.1	2.9
Nagpur	24.6	47.0	57.5	43.3	22.0	2.2
Patna	36.9	79.5	86.9	66.0	26.5	0.0
Pune	58.2	49.6	50.7	37.7	9.0	4.5
Raipur	25.8	79.7	88.6	35.4	15.9	0.0
Singrauli	36.9	39.8	58.4	22.6	3.3	0.4
Varanasi	21.7	43.0	63.0	15.7	12.8	0.9

# How do you seek information regarding air pollution in your city? (Multiple responses)

		Source of Information (% of respondents)					
Age group		Online search	Print media	TV	Discussion with Peer & family	Discussion with experts	Others
Overall-17 Locations	Below 18	35.7	48.7	68.3	32.8	9.2	0.9
	18 – 25 Years	39.0	40.1	60.2	27.1	10.0	1.7
	26 – 35 Years	35.3	54.7	67.4	30.0	9.1	1.6
	36 - 45 Years	30.7	62.1	68.1	28.5	9.1	1.6
	46 – 60 Years	26.9	64.1	68.7	26.4	6.9	0.9
	60 Years & above	11.2	65.7	73.4	31.4	4.7	1.2
Overall (SA) -Mixed Locations	Below 18	80.0	50.0	20.0	50.0	10.0	0.0
	18 – 25 Years	79.9	41.0	35.3	30.2	6.5	1.4
	26 – 35 Years	76.5	39.0	34.3	23.2	9.5	6.0
	36 - 45 Years	67.1	48.8	39.0	26.8	9.1	7.3
	46 – 60 Years	57.1	57.7	37.4	22.5	6.6	4.4
	60 Years & above	43.8	65.7	46.7	18.9	13.0	7.7

# How would you rate the overall air quality in your city?



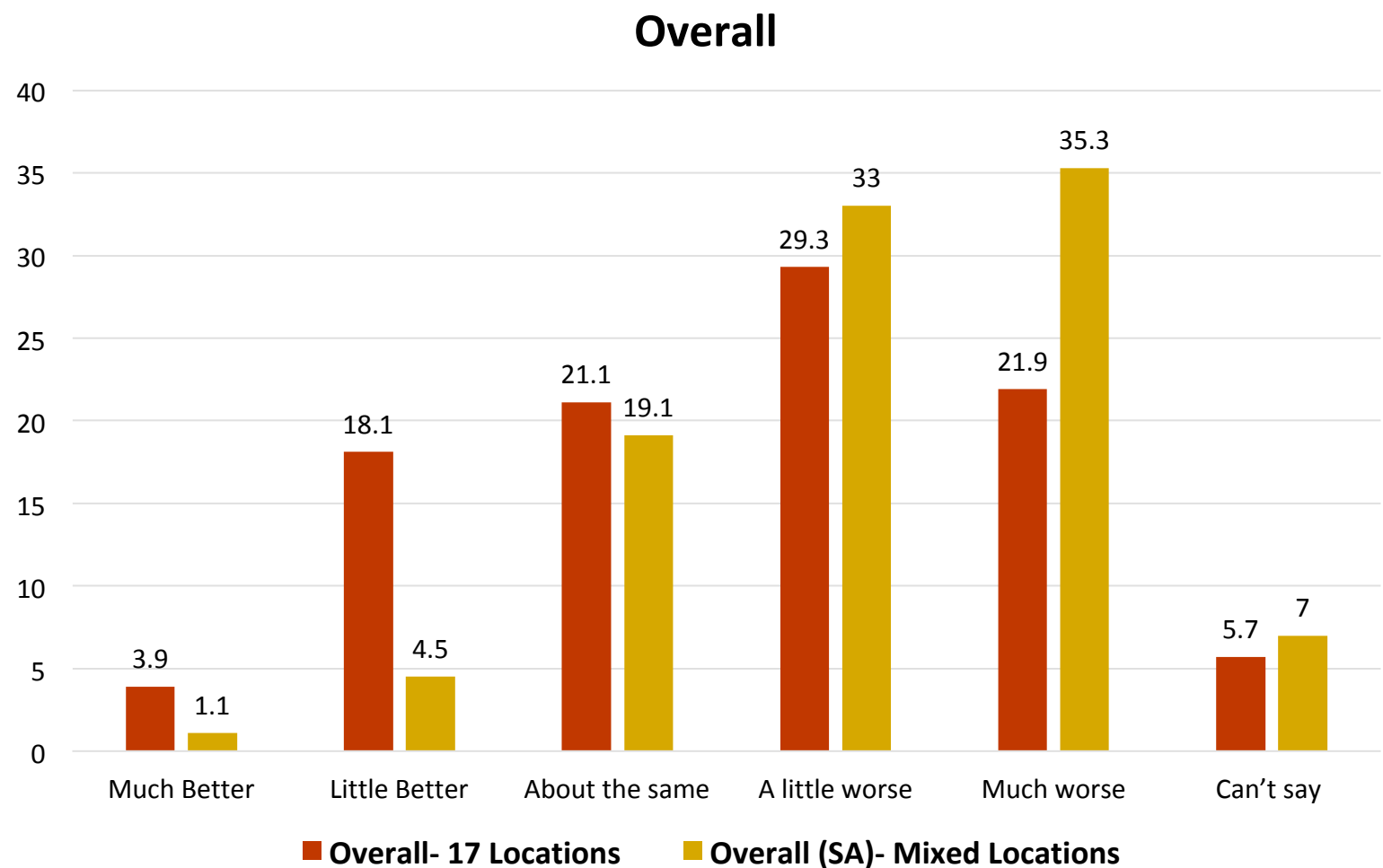
- More than 40% respondents rated the air quality in their cities as unhealthy while 10.6% felt that the air quality was toxic.

# How would you rate the overall air quality in your city?

*Location wise*

Location	Percentage of respondents stating:				
	Very Good	Good	Moderate	Unhealthy	Toxic/ hazardous
Amritsar	2.0	8.7	23.7	50.0	15.7
Angul	0.0	1.3	2.0	85.0	11.7
Bangalore	0.7	11.7	36.0	37.3	14.3
Chandrapur	7.0	26.7	28.0	26.0	12.3
Chennai	0.7	7.7	59.0	29.7	3.0
Delhi & NCR	1.0	8.3	16.0	50.0	24.7
Dhanbad	12.7	17.0	38.0	29.0	3.3
Calcutta	0.7	7.0	37.7	51.7	3.0
Korba	6.5	3.5	28.0	62.0	0.0
Lucknow	0.7	0.3	33.3	64.3	1.3
Mumbai	0.3	14.3	44.0	38.3	3.0
Nagpur	4.0	39.0	37.0	14.3	5.7
Patna	1.3	6.7	8.7	41.3	42.0
Pune	0.7	19.3	53.7	24.0	2.3
Raipur	6.0	29.0	41.0	19.7	4.3
Singrauli	3.7	10.3	25.3	55.0	5.7
Varanasi	6.7	20.0	20.3	29.0	24.0

# How have you perceived the changes in AQ in your city in the last 2-3 years?



- Around 22% (SA: 35.3%) respondents were of the view that the air quality has become much worse in the last 2-3 years.



# How have you perceived the changes in AQ in your city in the last 2-3 years?

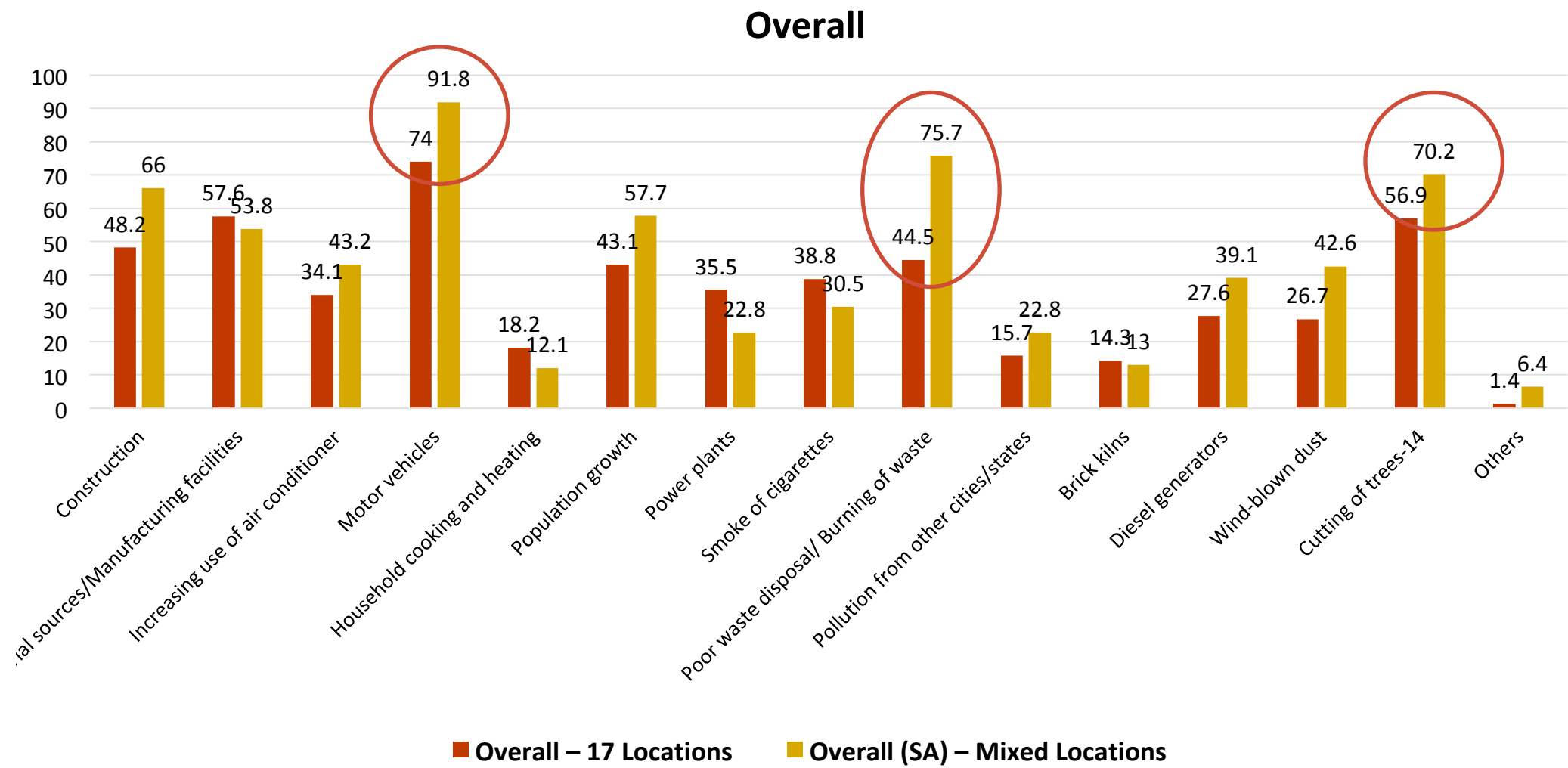
*Location-wise*

Location	Percentage of respondents stating:					
	Much Better	Little Better	About the same	A little worse	Much worse	Can't say
Amritsar	2.0	7.7	16.3	31.7	35.3	7.0
Angul	1.0	2.7	1.3	35.0	60.0	0.0
Bangalore	1.7	6.0	19.7	26.0	36.0	10.7
Chandrapur	5.7	33.0	31.7	16.3	9.0	4.3
Chennai	3.7	8.0	26.3	42.7	15.0	4.3
Delhi & NCR	0.7	8.7	14.7	27.3	40.0	8.7
Dhanbad	10.7	43.7	21.7	17.0	6.0	1.0
Calcutta	1.0	22.7	50.3	15.7	8.0	2.3
Korba	10.0	47.0	3.5	39.0	0.0	0.5
Lucknow	2.0	10.0	12.0	27.3	43.7	5.0
Mumbai	2.3	9.3	24.7	39.0	14.0	10.7
Nagpur	5.3	28.0	31.7	23.7	7.0	4.3
Patna	0.3	2.0	20.0	29.3	47.3	1.0
Pune	2.3	17.7	17.3	38.3	11.0	13.3
Raipur	3.7	27.0	19.0	42.3	4.3	3.7
Singrauli	7.7	19.3	25.0	24.7	17.3	6.0
Varanasi	8.0	25.0	17.3	26.0	11.0	12.7

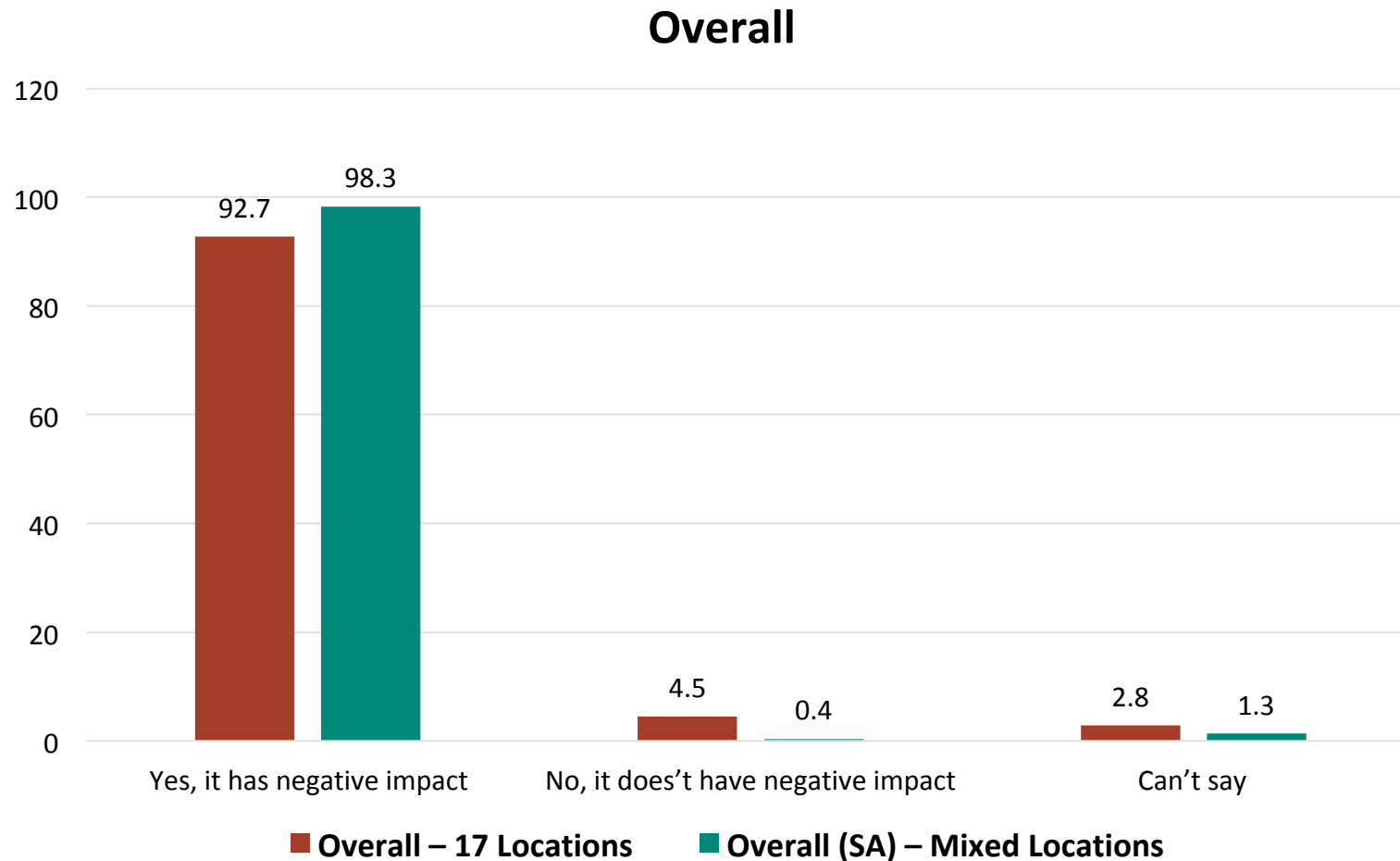
# Air Pollution: Causes, Effects & Precautions



# What do you think are the main causes of air pollution in your city? (Multiple Responses)

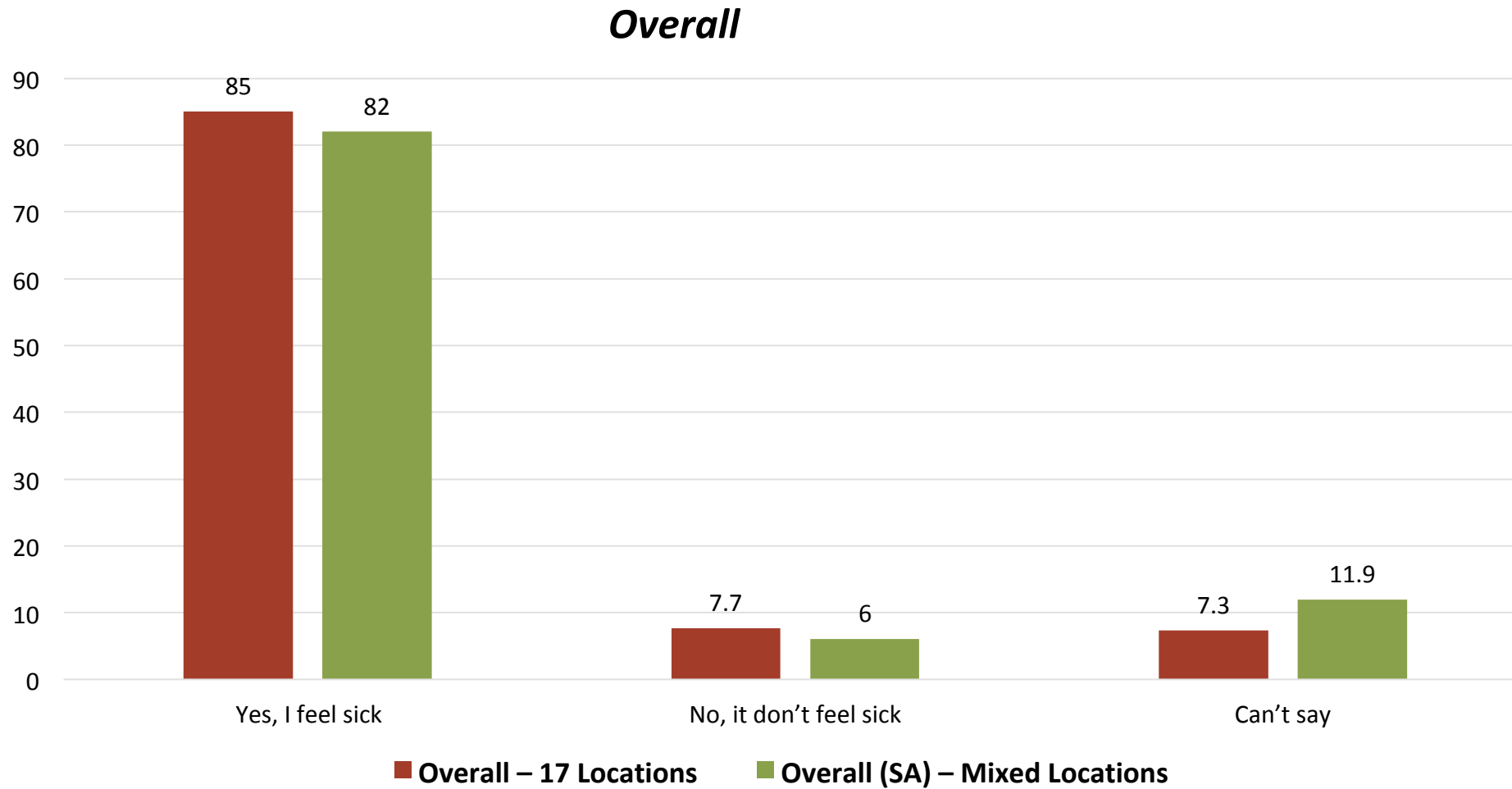


# Does air pollution have a negative impact on human health?



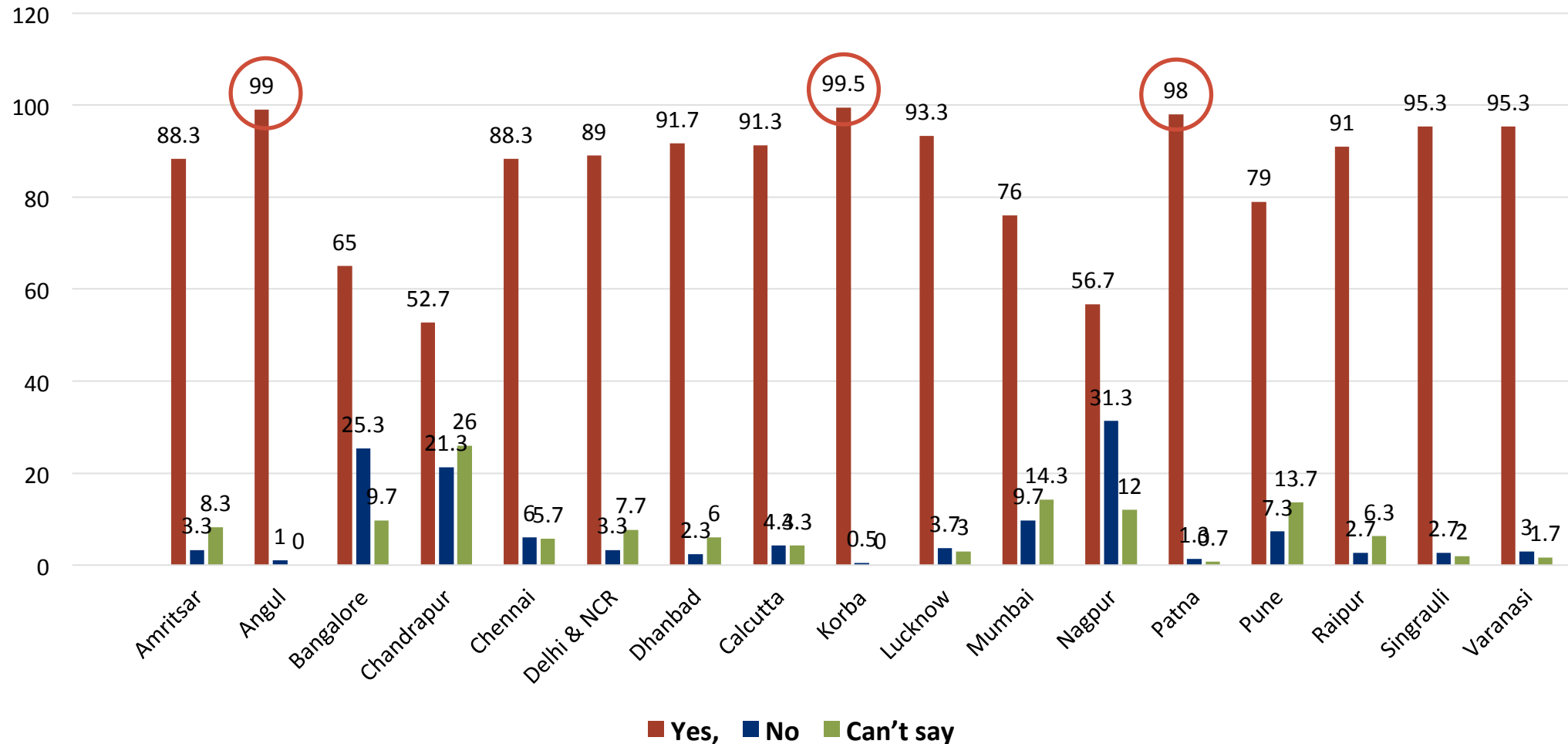
- Maximum respondents (92.7%) were of the view that air pollution has a negative impact on health.
- In case of respondents from SAs, more than 98% felt the same.

# Do you feel sick or uncomfortable when air quality is bad?

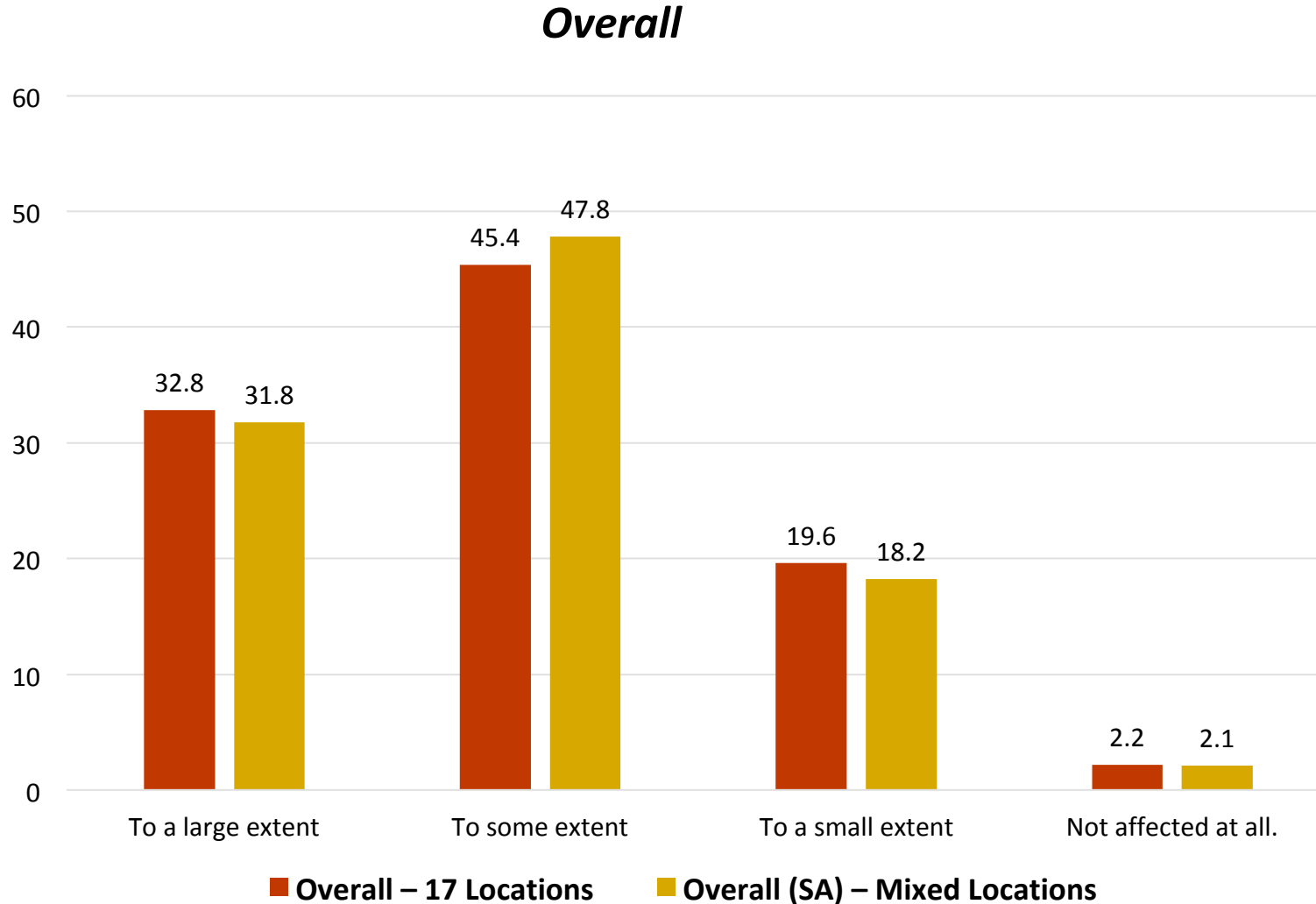


# Do you feel sick or uncomfortable when air quality is bad?

*Location-wise*



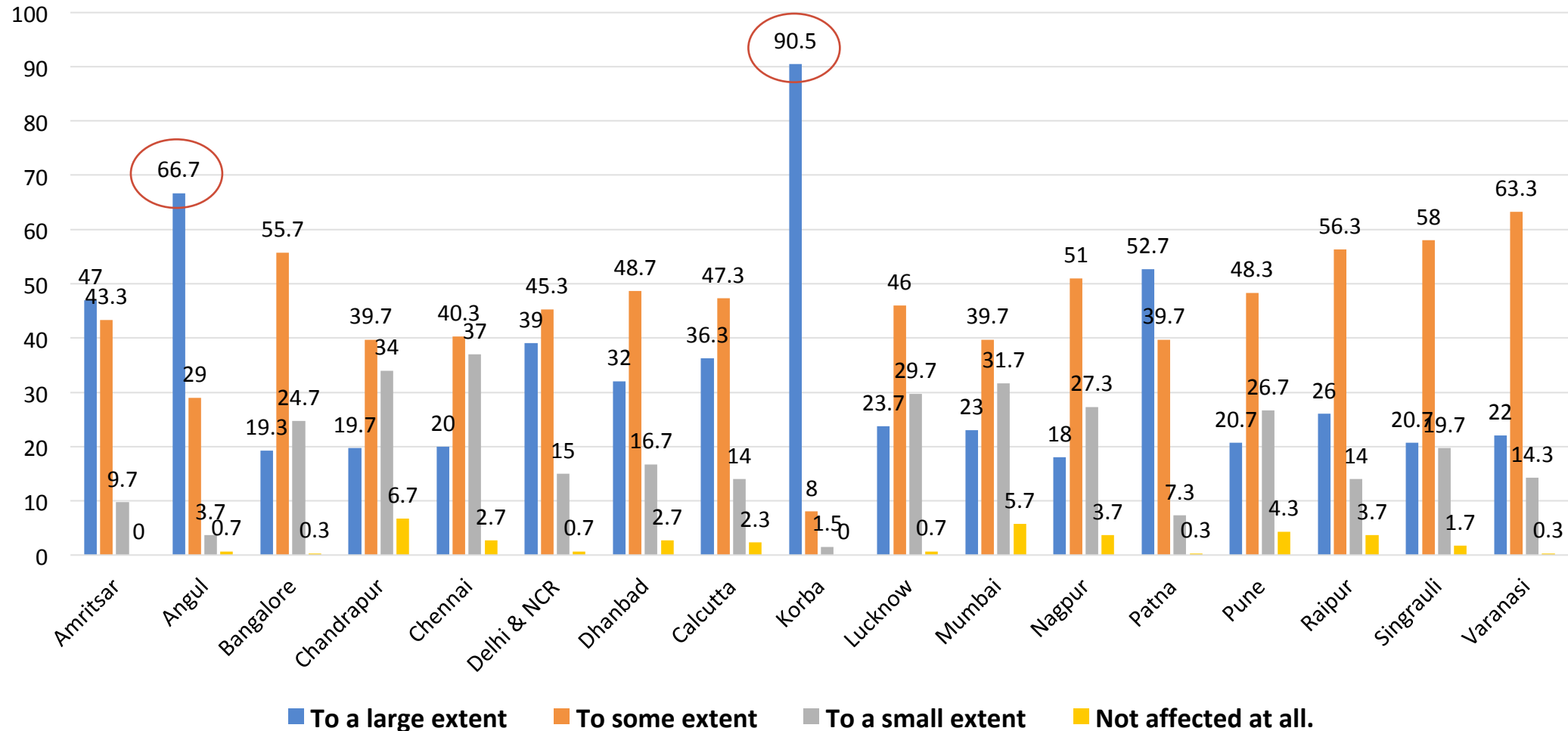
# To what extent is the air pollution affecting you?



- Around 32.8% (SA: 31.8%) respondents stated feeling discomfort to a large extent due to air pollution while another 45.4% (SA: 47.8%) felt discomfort to some extent.

# To what extent is the air pollution affecting you?

*Location-wise*



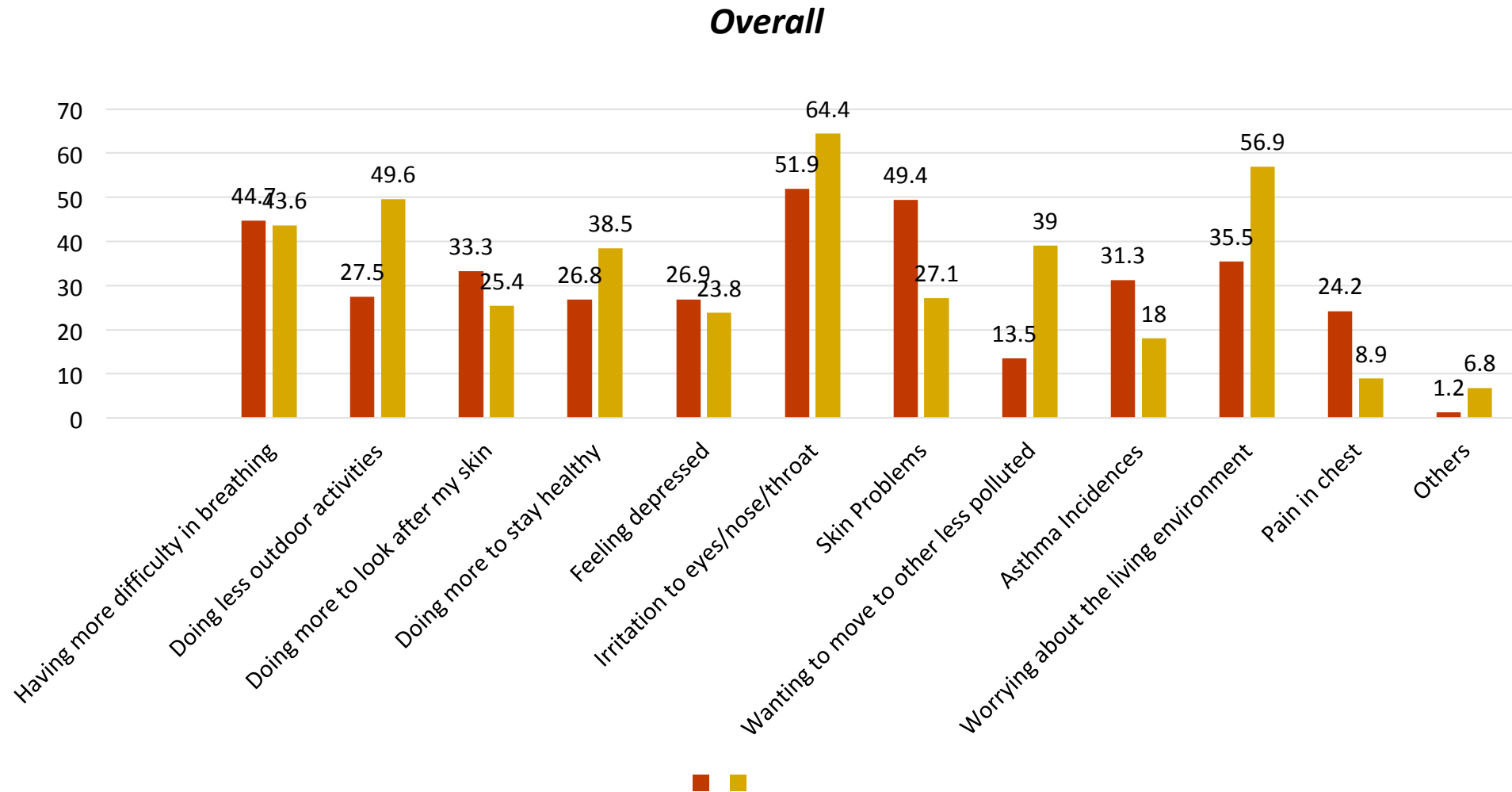


# To what extent is the air pollution affecting you?

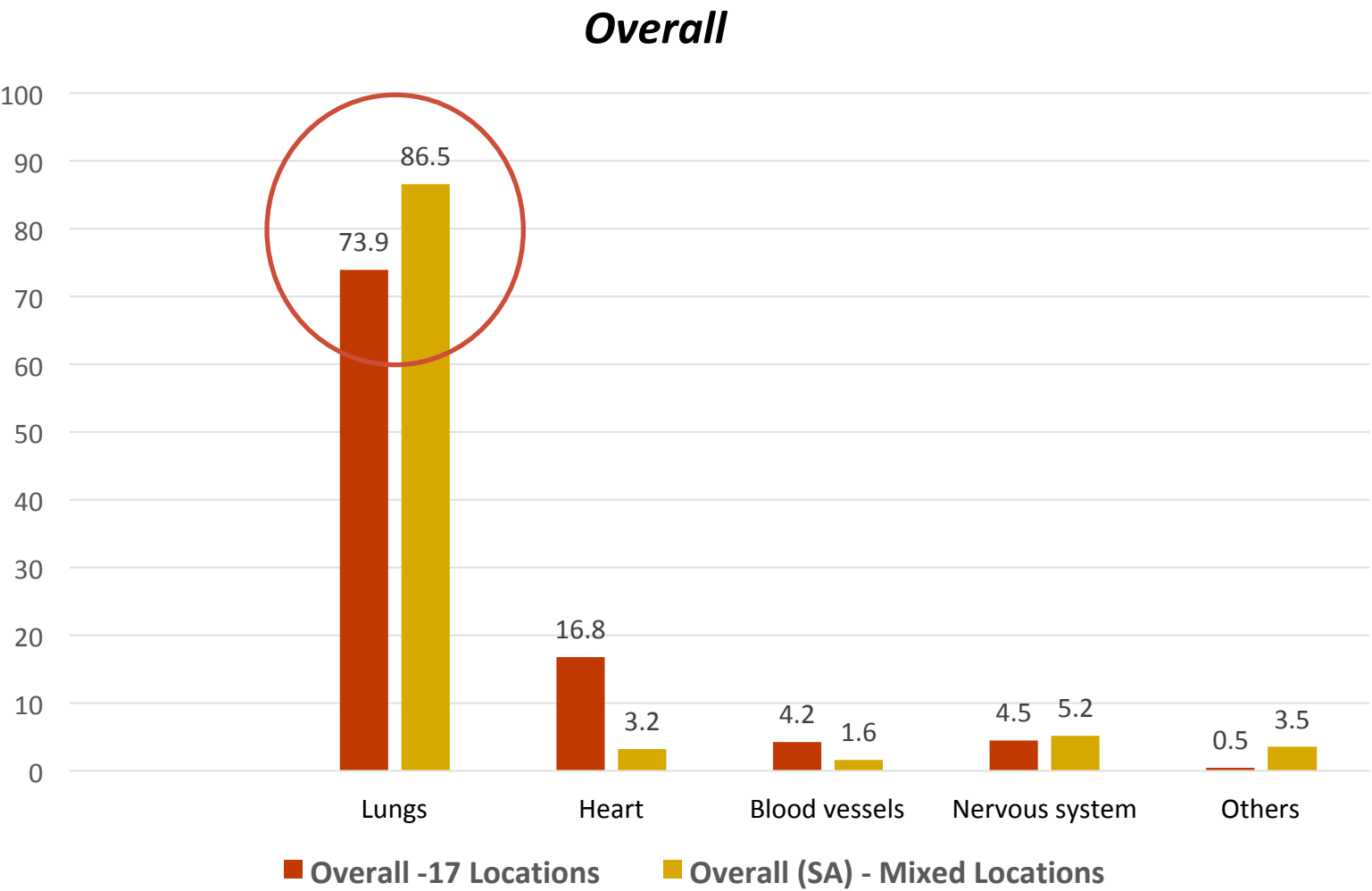
*Gender-wise*

		Percentage of Respondents stating:			
		Gender	To a large extent	To some extent	To a small extent
Overall – 17 Locations	Men	31.3	44.9	21.5	2.4
	Women	34.8	46.1	17.2	1.9
Overall (SA) – Mixed Locations	Men	29.2	49.7	19.1	2.0
	Women	38.6	42.8	16.2	2.4
	Trans.	50.0	50.0	0.0	0.0

# In which of the following ways are you affected? (Multiple Responses)

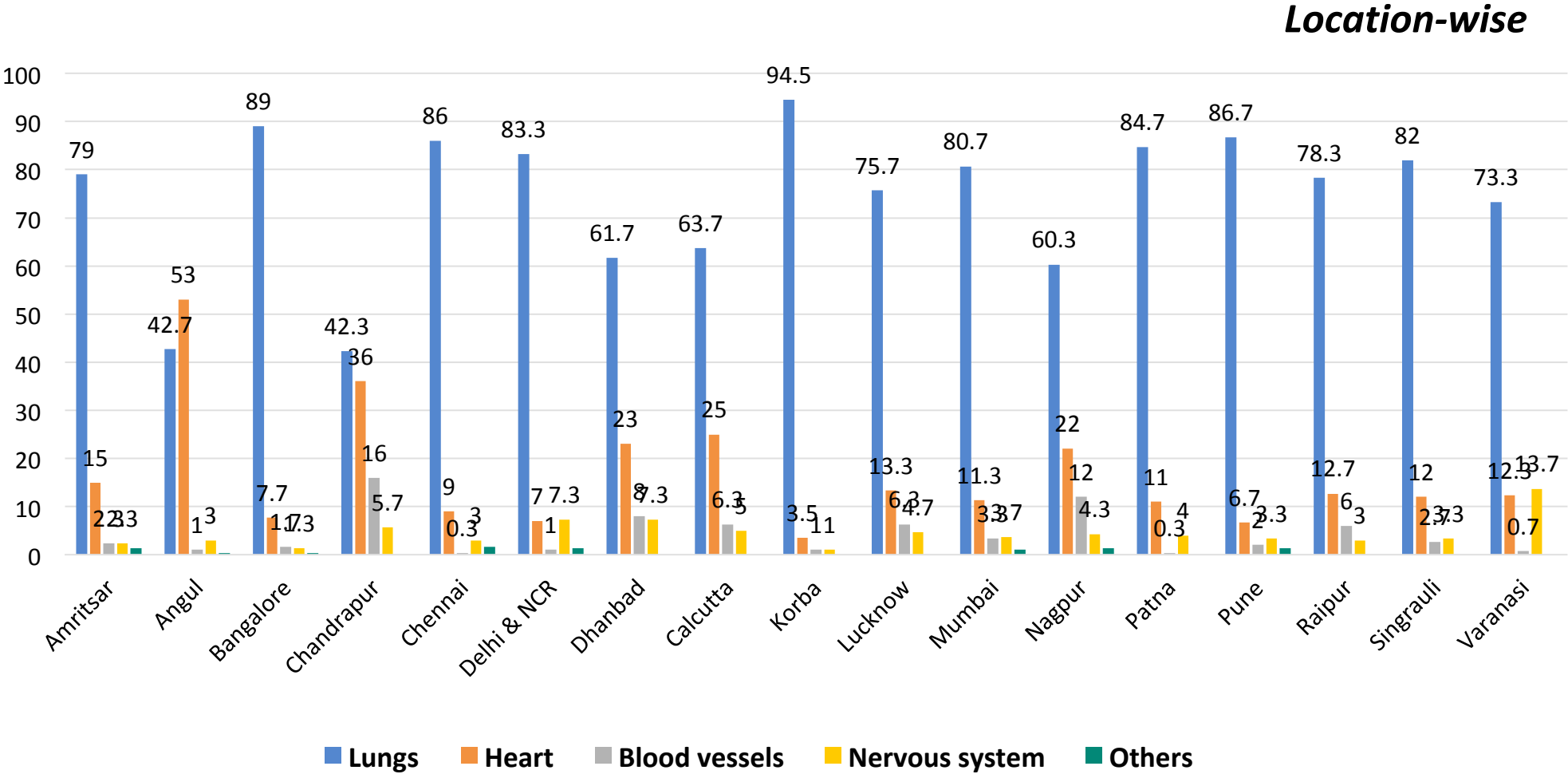


# According to you, which part of the body will be affected the most by air pollution?

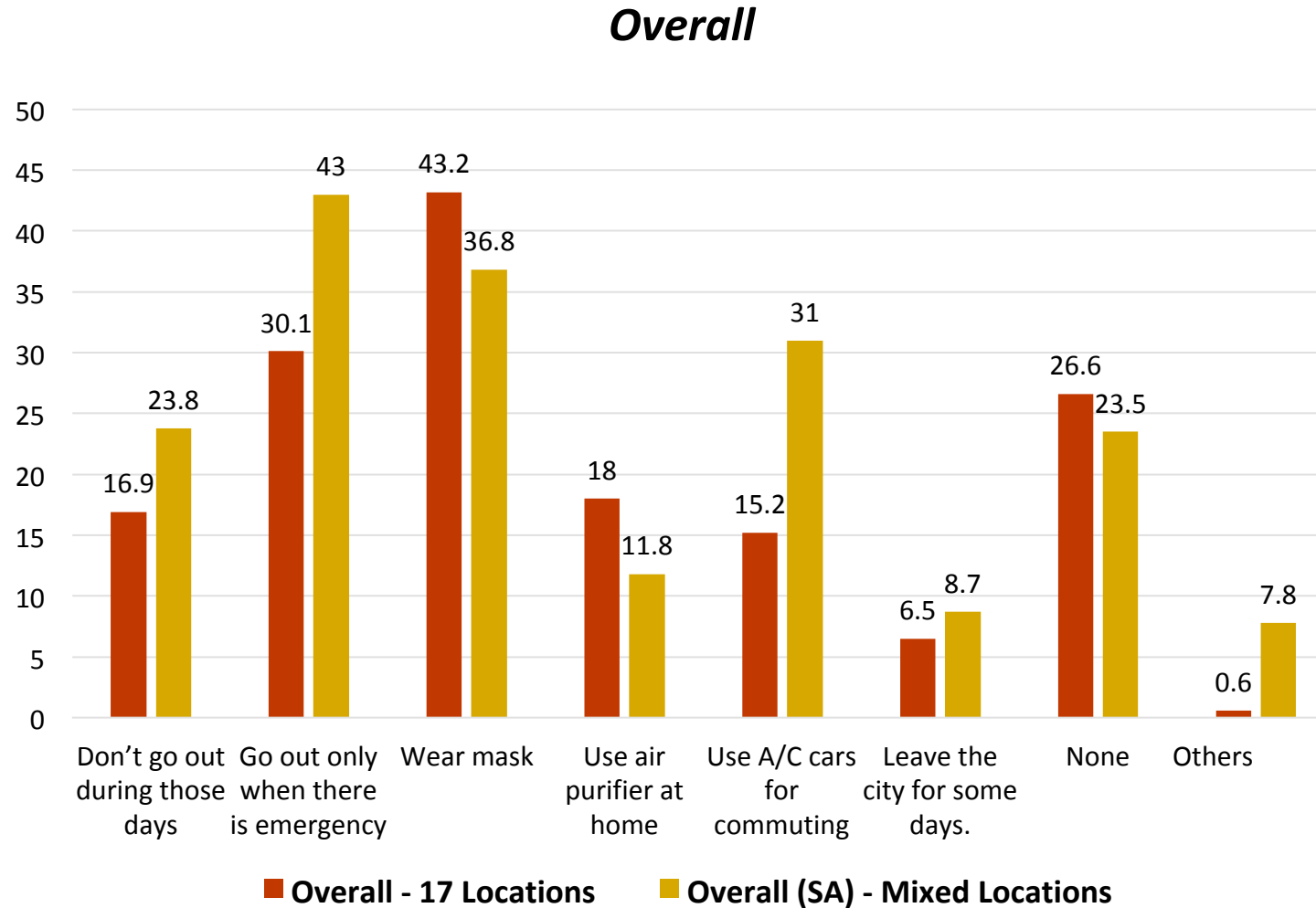


- Majority of the respondents (73.9%) were of the opinion that lungs is affected most by pollution while the corresponding figure for the SAs was 86.5%.

# According to you, which part of the body will be affected the most by air pollution?



# What are the precautionary measures you take when there is bad air quality in your city?



- Maximum respondents (43.2%, SA: 36.8%) stated wearing masks when the air quality is bad followed by 30% (SA: 43%) who said they go out only during emergencies.
- Slightly more than 26% (SA: 23.5%) said they do not take any precautionary measures for air pollution.

# What are the precautionary measures you take when there is bad air quality in your city?

*Location-wise*

Location	Percentage of respondents stating:							
	Don't go out during those days	Go out only when there is emergency	Wear mask	Use air purifier at home	Use A/C cars for commuting	Leave the city for some days.	None	Others
Amritsar	23.7	48.7	61.3	10.7	10.7	2.7	10.7	0.7
Angul	4.0	3.7	34.3	1.7	1.7	0.7	60.7	0.0
Bangalore	16.7	21.7	39.3	8.0	13.0	5.3	39.0	2.7
Chandrapur	13.0	46.0	53.7	42.3	30.3	27.7	5.0	0.0
Chennai	19.3	23.3	38.0	9.3	12.3	11.0	36.7	1.3
Delhi & NCR	31.7	57.0	64.7	17.0	28.0	8.3	8.3	0.7
Dhanbad	18.7	25.0	53.0	20.3	9.0	2.3	13.3	0.0
Calcutta	14.3	49.3	59.0	36.3	23.3	10.0	11.0	0.0
Korba	20.5	39.5	18.5	44.5	11.5	0.0	5.0	0.0
Lucknow	11.3	16.3	43.0	8.0	9.0	2.0	44.0	0.3
Mumbai	18.0	27.7	52.7	12.0	18.7	6.3	21.3	1.0
Nagpur	14.0	34.7	56.3	29.3	26.7	13.3	9.3	0.3
Patna	10.3	19.7	16.3	15.3	17.0	0.0	44.7	0.7
Pune	19.7	32.0	48.0	15.0	29.7	9.3	19.0	2.0
Raipur	10.0	23.0	24.7	16.0	5.0	5.0	41.3	0.3
Singrauli	13.7	19.3	47.0	10.3	6.7	2.3	38.7	0.0
Varanasi	29.7	27.3	17.0	18.0	4.3	2.3	36.3	0.0

**How concerned are you on the effects of these environmental issues on your personal health or well-being? (Please rank on your level of concern, with 1 - highest concern and 8 - lowest concern.)**

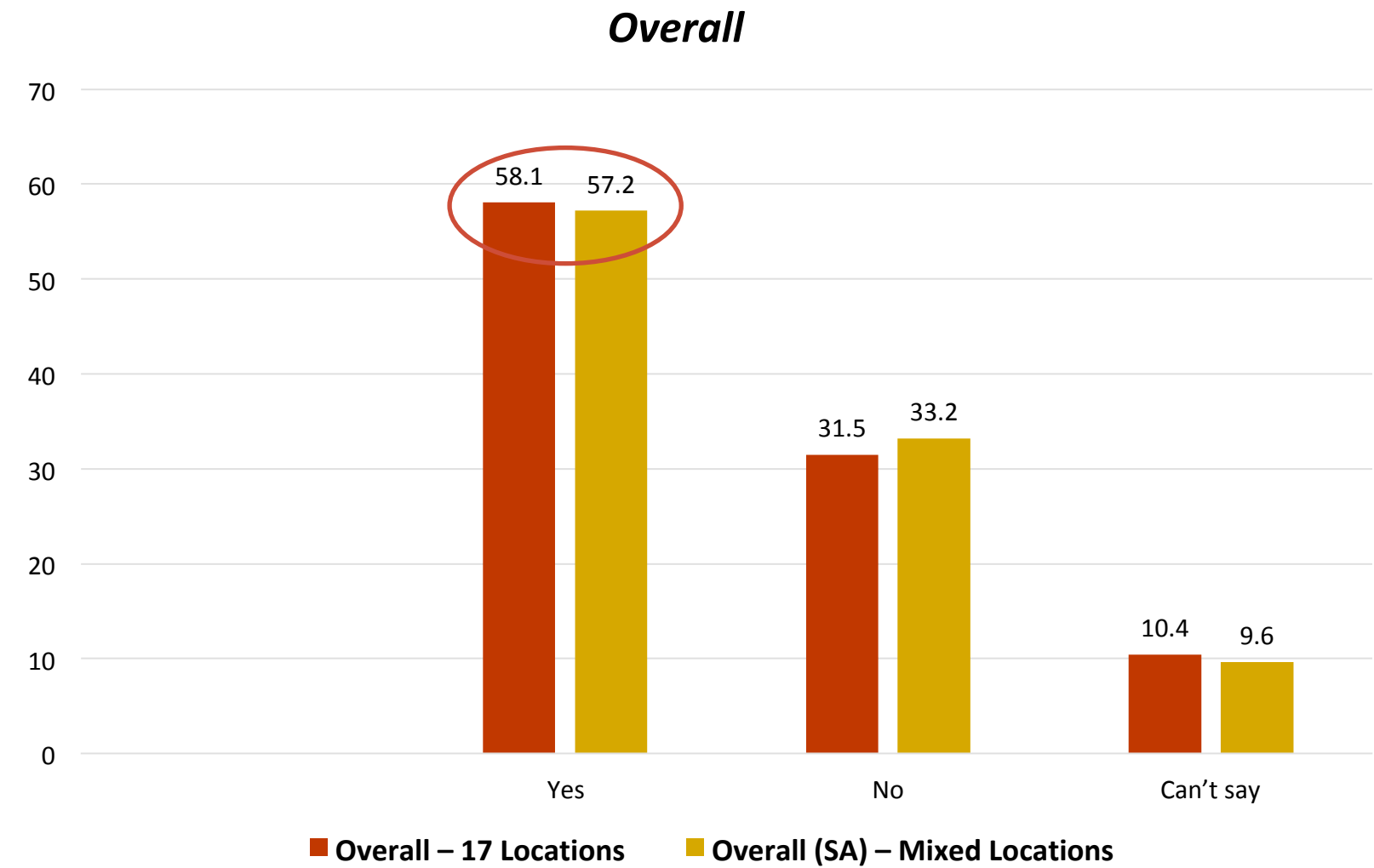
Overall	Environmental Issues	Air pollution Ranking from “I” (Issue receiving highest number of responses) to “VIII” (Issue receiving lowest number of responses)							
		I	II	III	IV	V	VI	VII	VII
Overall - 17 Locations	Air pollution	46.4	20.4	10.9	9	6.6	3	1.9	1.7
	Drinking polluted Water	19.5	31.8	15.3	9.9	7.5	6.1	4	5.9
	Garbage and solid waste	5.1	3.2	24.5	17.1	13.5	10.8	9.4	6.4
	Liquid waste	6.9	7.6	10	24.9	13.3	9.9	13.3	14.2
	Global warming and climate change	12.2	11	13.8	10.5	25.2	10.1	9.6	7.5
	Loss of green areas in the city	5	5.1	11.4	11.3	12.8	31.9	13.7	8.8
	Surface water (river, lakes) pollution	2	5.7	5.8	9.3	13.3	13.3	35	15.5
	Unsafe food	2.9	5.1	8.4	8	7.8	14.7	13.2	40
Overall (SA) - Mixed Locations	Air pollution	40.1	23.1	15	8	5.6	4.1	2.2	2
	Drinking polluted Water	17.4	30.9	14.7	11.8	7.9	6	6.2	5.1
	Garbage and solid waste	4.8	9.2	18.7	12.8	24	10.7	15	4.7
	Liquid waste	1.2	2.1	7.2	21.4	14.3	24.6	15.4	13.8
	Global warming and climate change	17.2	7.5	8.9	11.3	12.7	11.6	11.4	19.2
	Loss of green areas in the city	10.1	10.5	12.4	15.5	18.2	15.2	12.6	5.5
	Surface water (river, lakes) pollution	4.2	7.5	11.6	12.5	10.3	17.4	28.7	7.8
	Unsafe food	4.9	9.1	11.5	6.6	6.9	10.5	8.5	42

# Controlling Air Pollution and Improving Air Quality





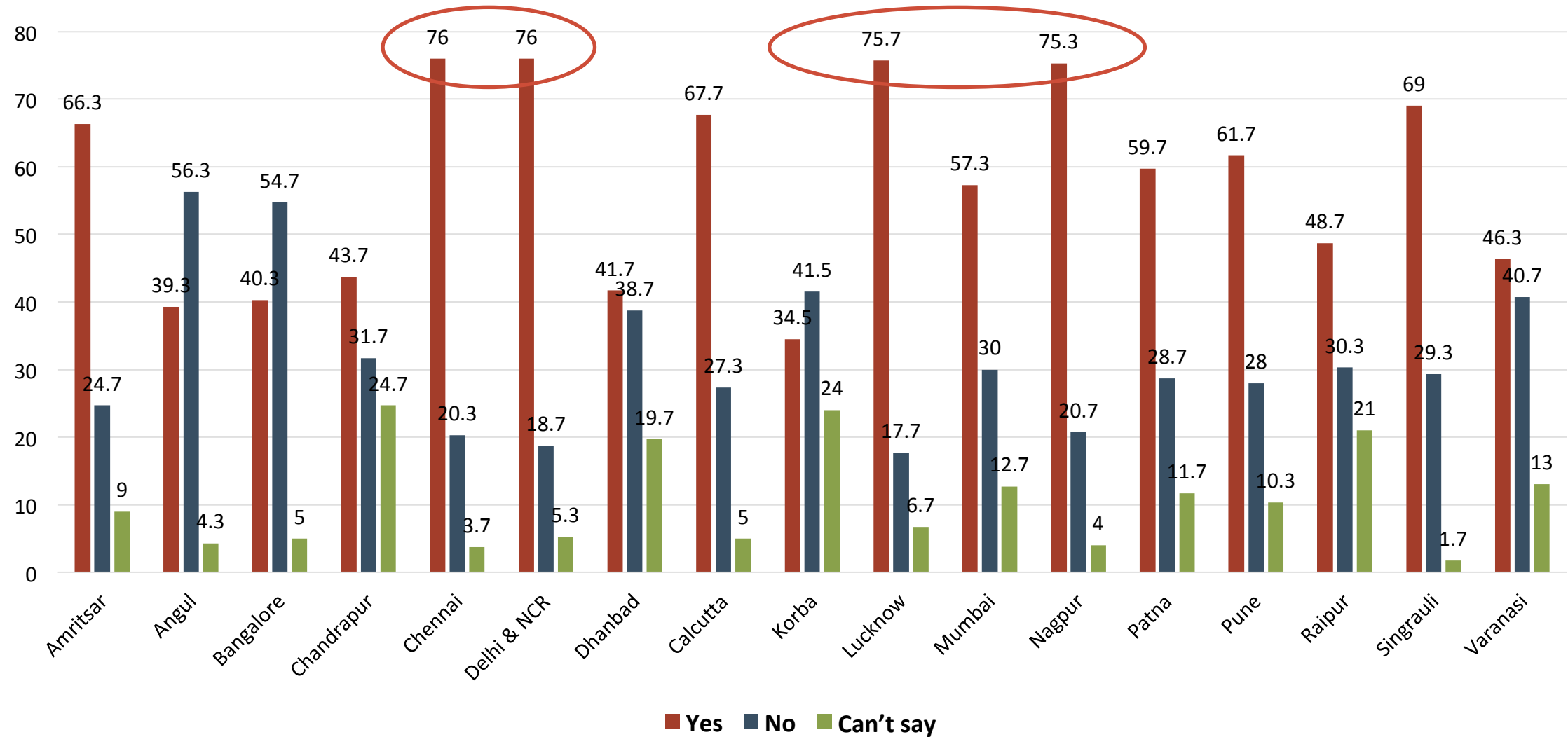
# Are you aware about any of the action that government/civil society organisations has taken to mitigate the impact of bad air quality?



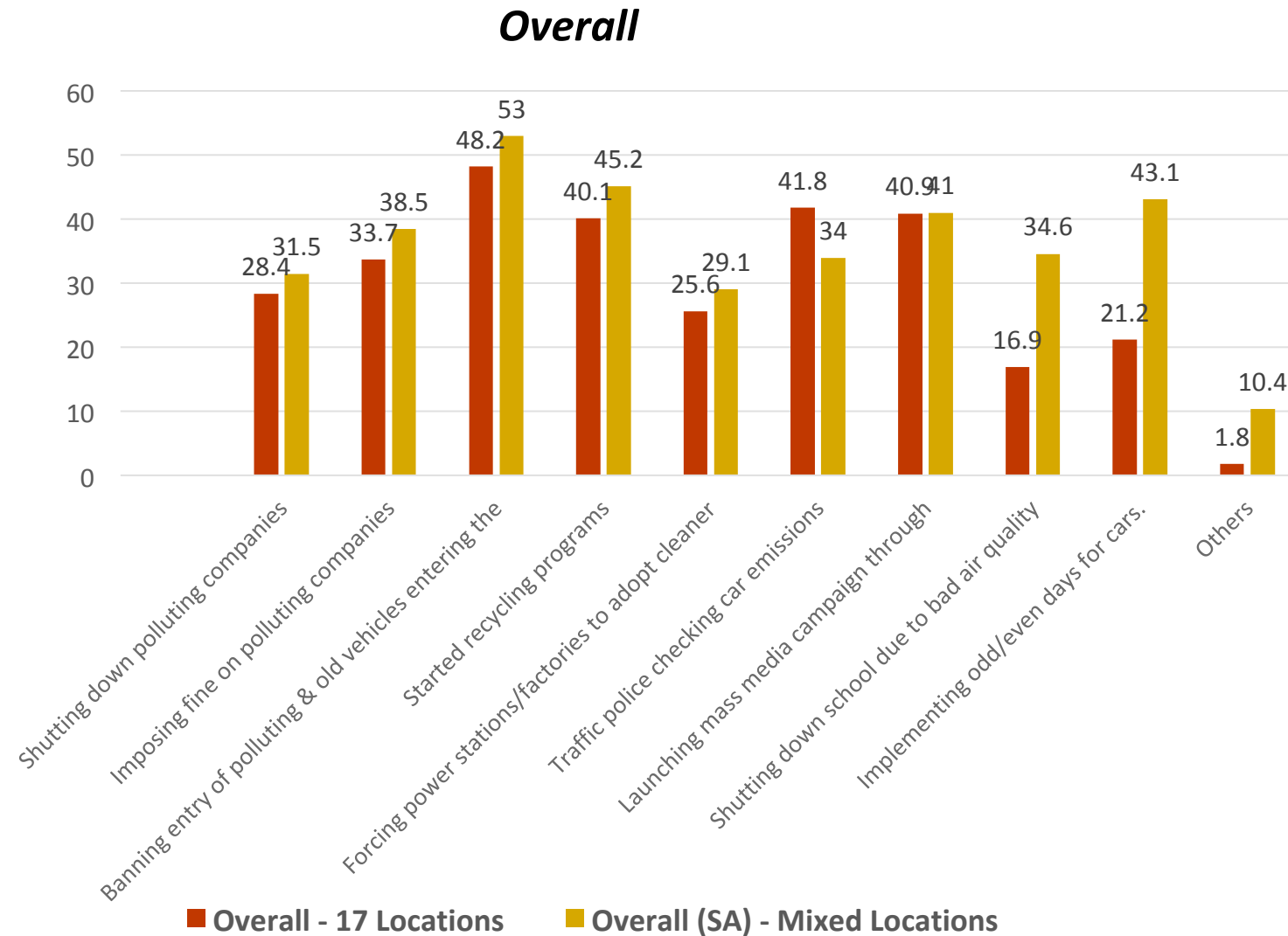
- Around 58% respondents (SA: 57.2%) claimed awareness about the actions taken by the government/CSOs to mitigate the impact of bad air quality.

# Are you aware about any of the action that government/civil society organisations has taken to mitigate the impact of bad air quality?

Location-wise



# If Yes, what actions has been taken by the government? (Multiple Responses)



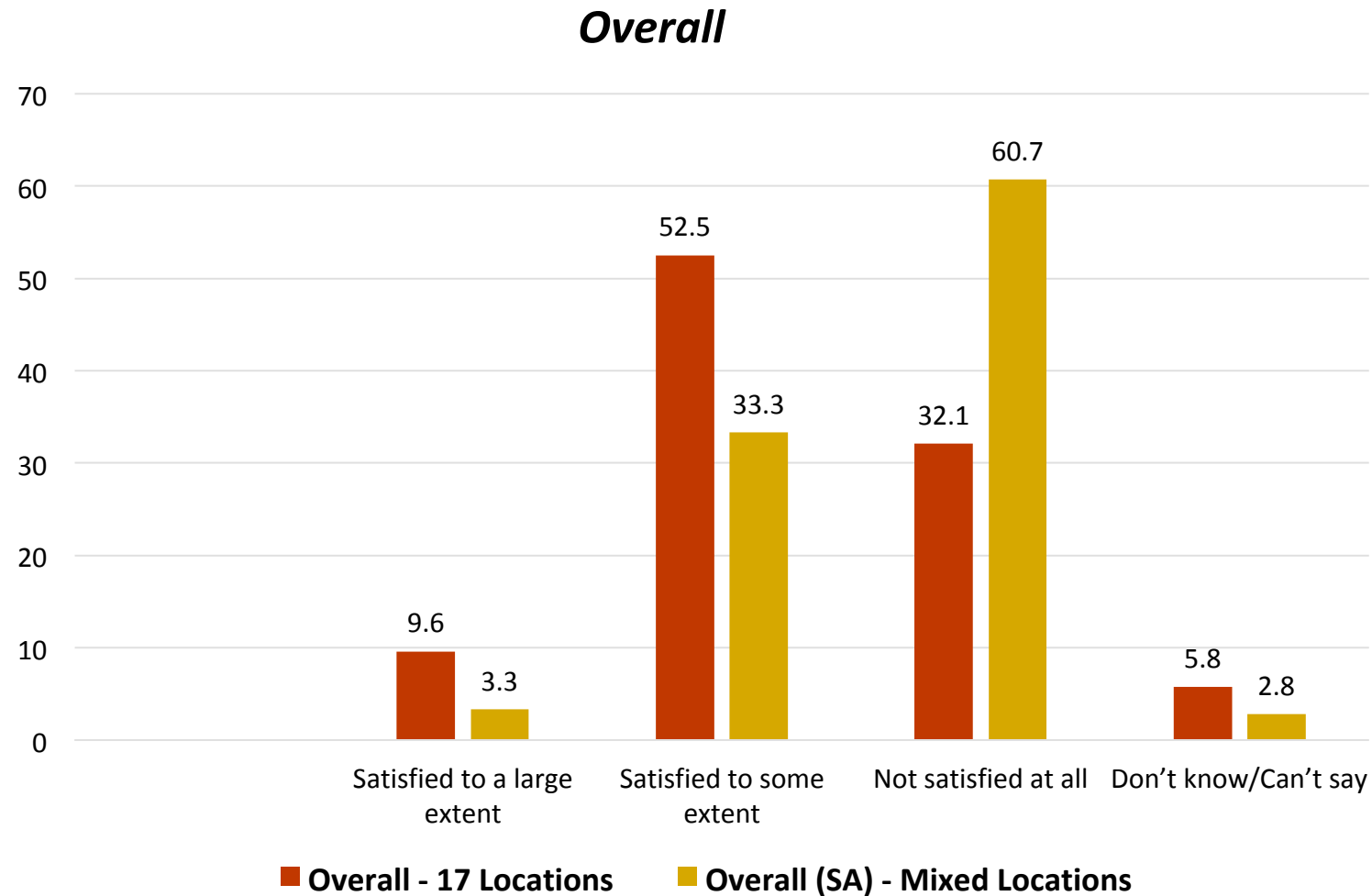
- According to majority respondents (48.2%, SA: 53%) action taken by govt. to curb pollution is banning the entry of old & polluting vehicles.
- Another 41.8% (SA: 34%) stated traffic police checking car emissions more frequently.

# If Yes, what actions has been taken by the government? (Multiple Responses)

## Location-wise

Location	Percentage of respondents stating:									
	Shutting down polluting companies	Imposing fine on polluting companies	Banning entry of polluting & old vehicles entering the city.	Started recycling programs	Forcing power stations/ factories to adopt cleaner processes.	Traffic police checking car emissions	Launching mass media campaign through banners, advertisements and media	Shutting down school due to bad air quality	Implementing odd/even days for cars.	Others
Amritsar	42.7	24.6	31.7	45.7	14.1	55.3	25.6	18.6	16.6	6.5
Angul	13.6	9.3	10.2	9.3	6.8	8.5	78.8	7.6	11.9	0.0
Bangalore	33.9	51.2	40.5	57.9	28.1	50.4	38.8	14.9	30.6	3.3
Chandrapur	18.3	37.4	53.4	40.5	38.2	48.9	45.0	23.7	22.9	0.8
Chennai	41.7	23.7	47.4	31.6	30.3	40.8	34.6	13.2	10.1	1.8
Delhi & NCR	33.3	34.2	64.0	37.7	26.8	33.3	44.3	57.9	67.5	2.2
Dhanbad	24.0	32.0	34.4	32.0	12.8	34.4	18.4	7.2	4.0	0.0
Calcutta	33.5	48.3	67.0	56.2	41.4	46.3	54.7	21.7	18.2	0.0
Korba	31.9	10.1	49.3	10.1	14.5	20.3	21.7	1.4	33.3	0.0
Lucknow	18.5	53.3	76.2	26.9	17.6	51.1	29.5	6.2	7.0	0.4
Mumbai	31.4	34.3	40.7	57.6	24.4	38.4	41.3	11.0	20.3	5.8
Nagpur	18.1	33.6	48.2	43.4	39.4	41.6	42.5	26.5	11.5	2.2
Patna	16.2	20.7	30.7	11.7	20.7	65.4	52.5	8.4	12.8	0.0
Pune	30.8	40.0	39.5	70.3	27.6	47.6	49.2	16.8	32.4	4.9
Raipur	30.1	21.2	70.5	47.3	29.5	31.5	47.9	6.2	51.4	0.7
Singrauli	14.5	47.3	46.9	36.7	24.6	44.4	23.7	8.2	5.8	0.0
Varanasi	50.4	24.5	42.4	47.5	20.9	20.9	51.1	10.8	8.6	0.0

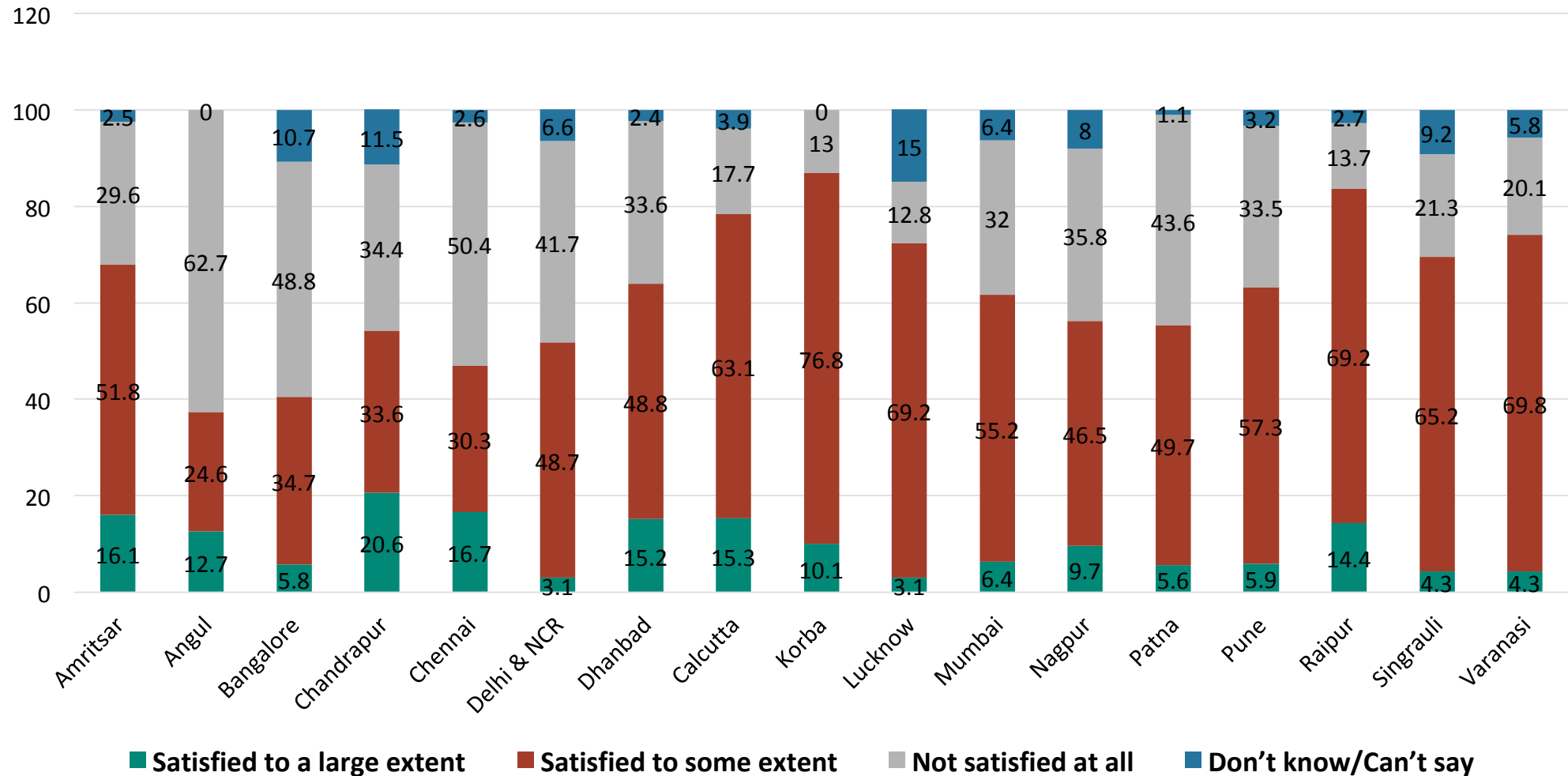
# To what extent are you satisfied with the actions taken by the government to control air pollution?



- About 32% respondents were not satisfied with the govt. initiatives to curb pollution. The corresponding figure in case of SAs was 60.7%.
- Less than 10% respondents (3.3%) stated satisfaction to a large extent with the govt. initiatives.

# To what extent are you satisfied with the actions taken by the government to control air pollution?

*Location-wise*



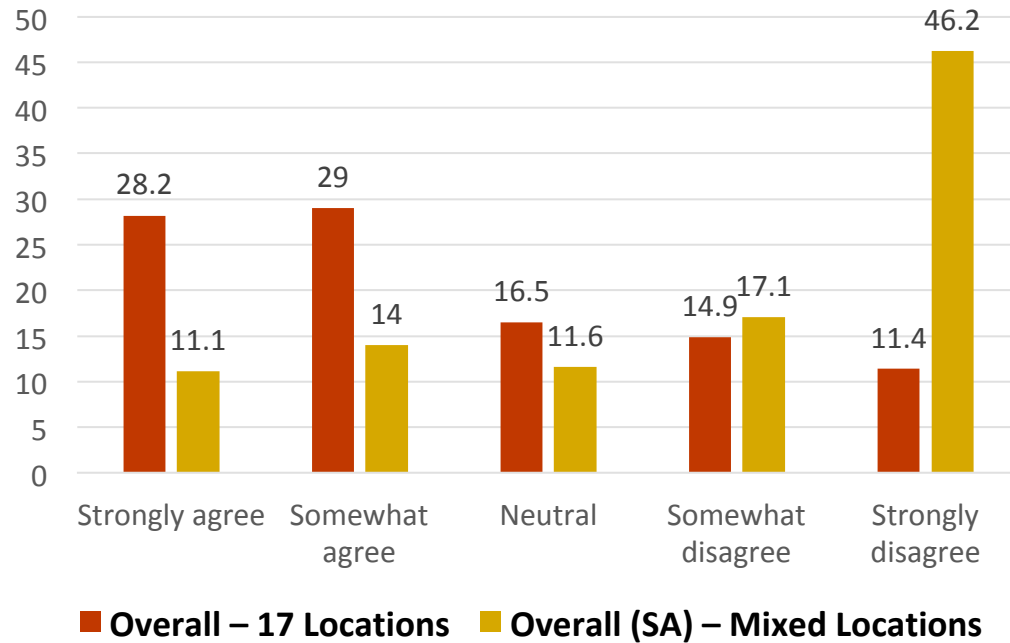
# To what extent are you satisfied with the actions taken by the government to control air pollution?

*Age-group*

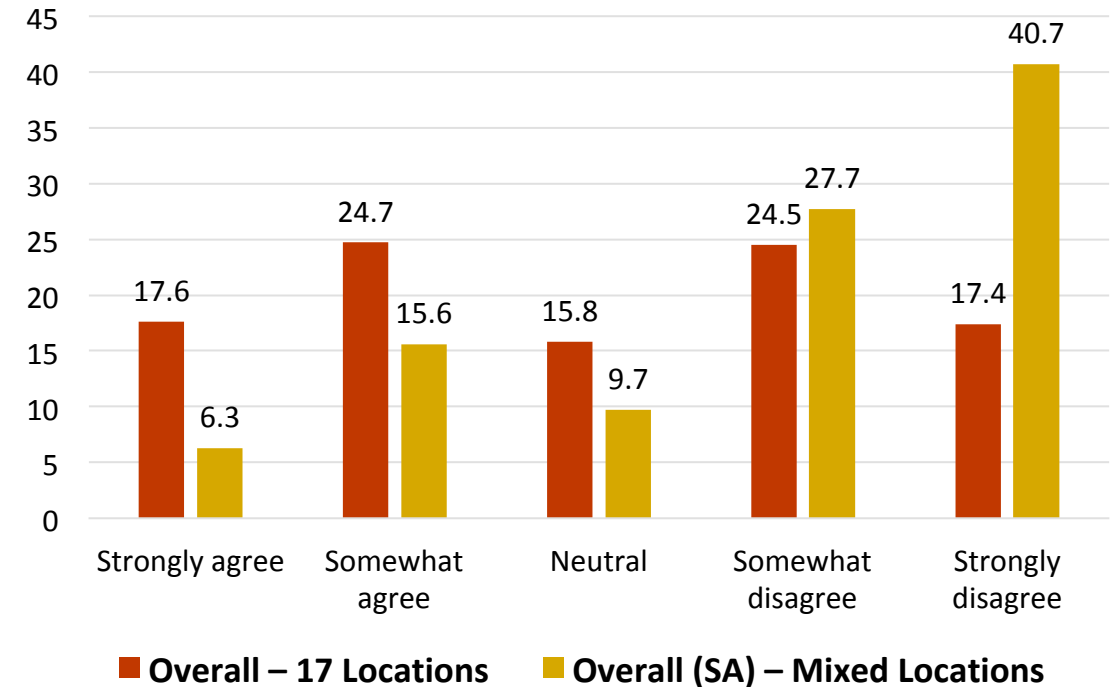
		Percentage of Respondents stating:			
		Location	Satisfied to a large extent	Satisfied to some extent	Not satisfied at all
Overall – 17 Locations	Below 18	8.9	53.5	30.2	7.5
	18 – 25 Years	12.2	49.9	32.4	5.5
	26 – 35 Years	10.0	54.0	31.1	4.8
	36 - 45 Years	9.3	49.3	36.4	4.9
	46 – 60 Years	8.6	57.0	29.5	5.0
	60 Years & above	3.4	52.5	33.9	10.2
Overall (SA) – Mixed Locations	Below 18	0.0	16.7	66.7	16.7
	18 – 25 Years	1.2	34.9	61.4	2.4
	26 – 35 Years	3.4	27.4	66.9	2.3
	36 - 45 Years	3.0	32.3	61.6	3.0
	46 – 60 Years	4.1	36.1	57.4	2.5
	60 Years & above	3.8	39.2	53.8	3.1

# Please indicate your level of agreement/disagreement with the following statements?

*Statement 1: Focusing on air pollution may negatively influence growth and employment opportunities in the area (Overall)*



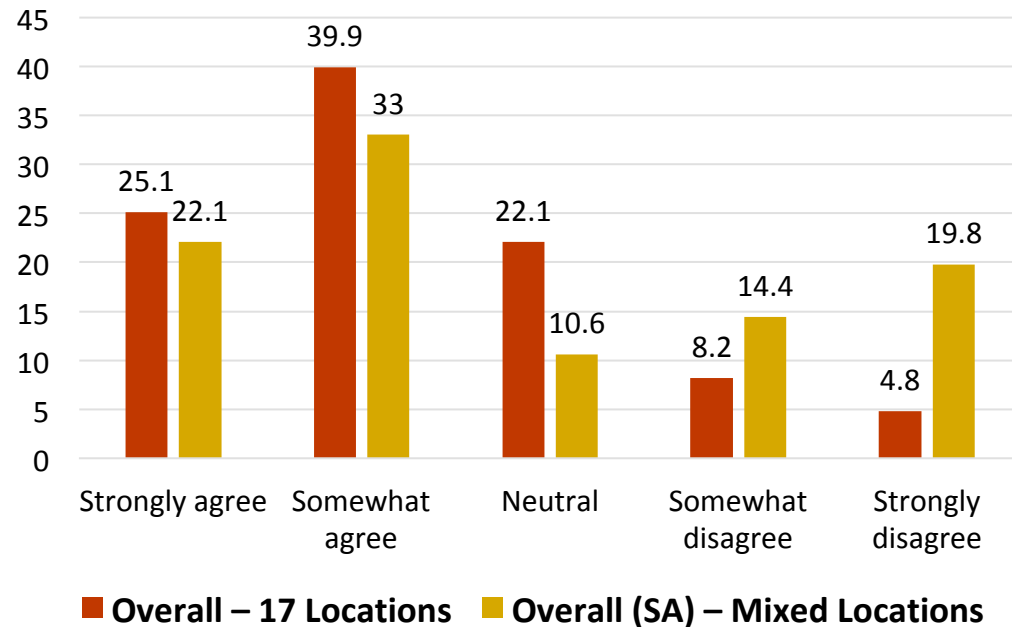
*Statement 2: Air pollution has gone out of control and nothing can be done now (Overall)*



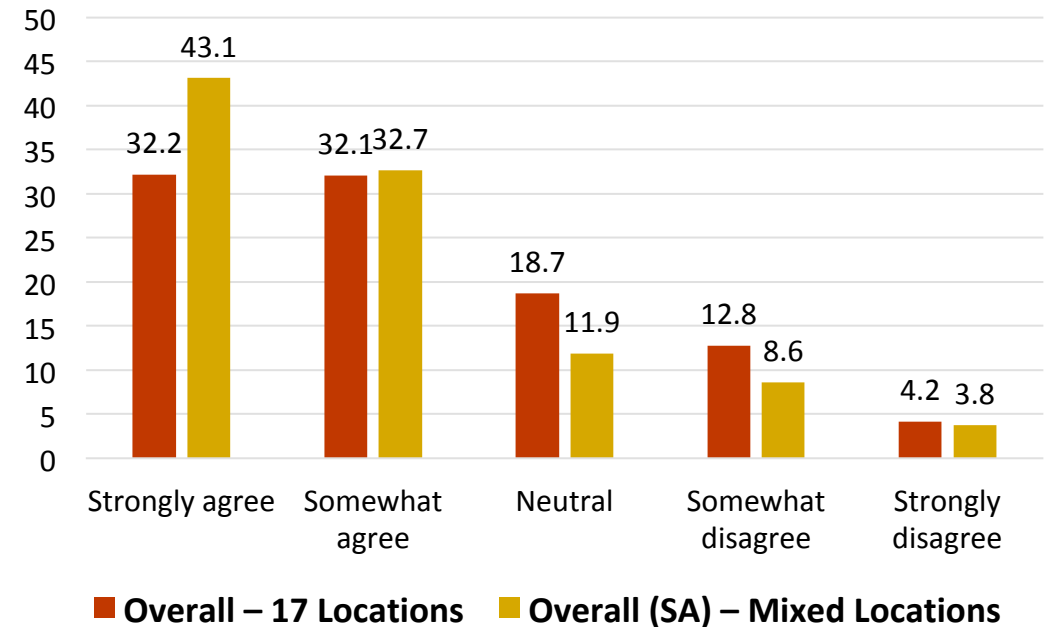


# Please indicate your level of agreement/disagreement with the following statements?

**Statement 3: There is always a conflict between economic development and protecting the environment (Overall)**

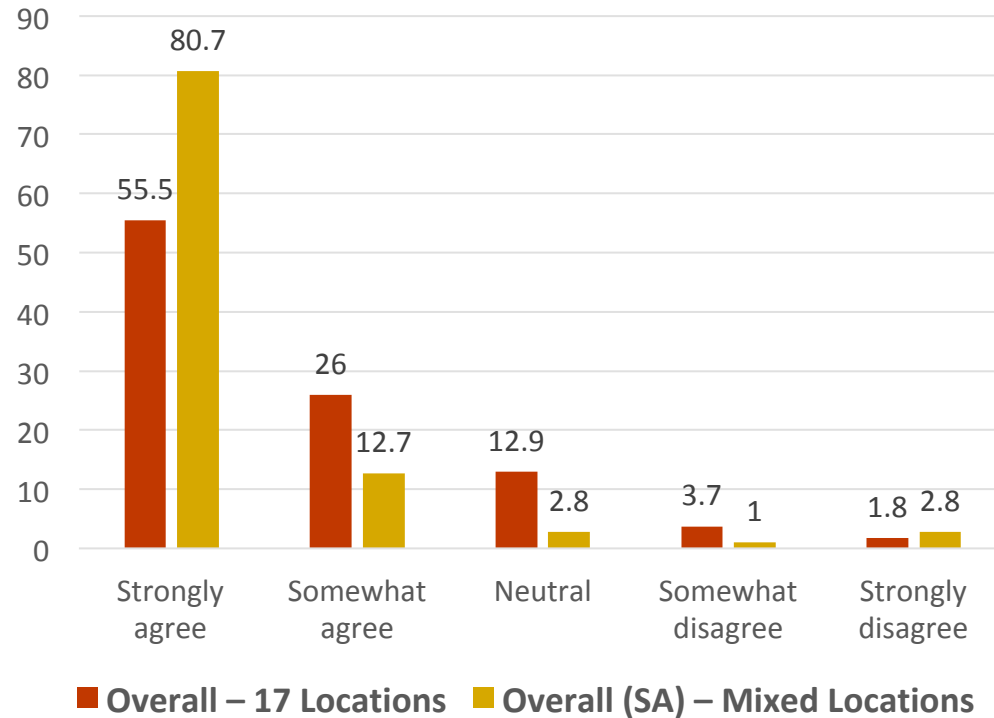


**Statement 4: Government should shut down the polluting companies in the city even if it puts some jobs at risk (Overall)**

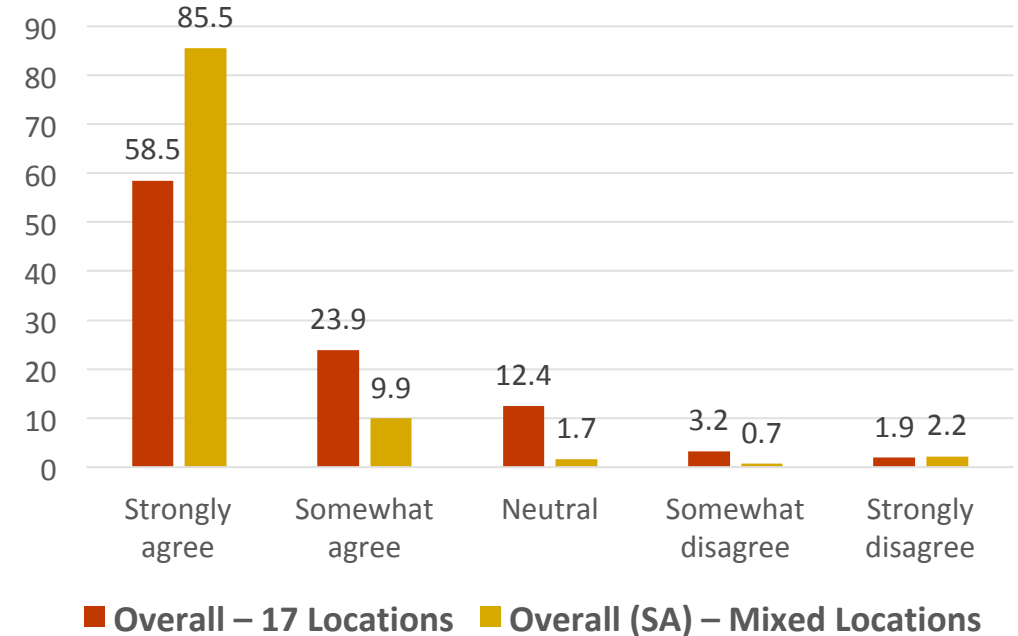


# Statements Related to Air Pollution – Agree / Disagree

*Statement 5: Polluting companies should be fined as per the provision in our laws (Overall)*

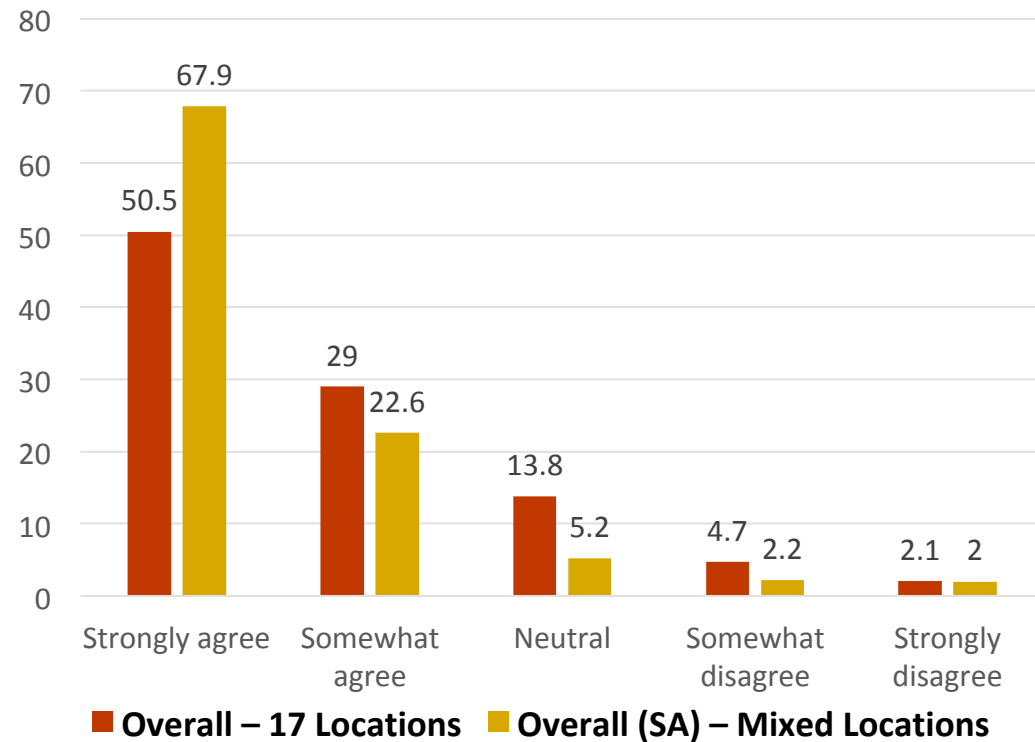


*Statement 6: Government needs to bring new and strict laws to mitigate and control air pollution (Overall)*

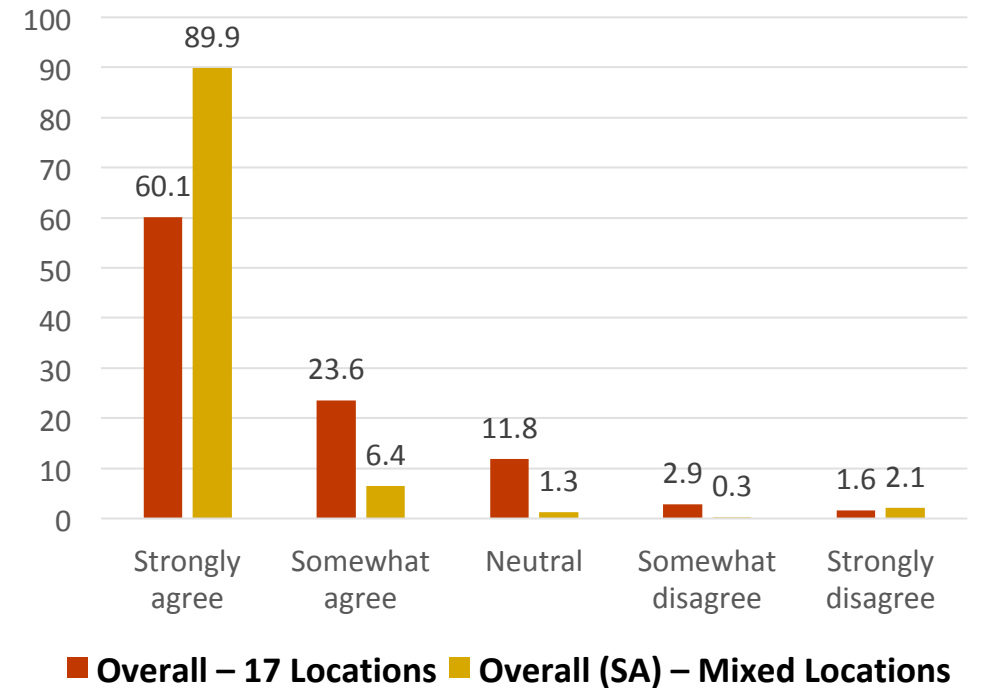


# Please indicate your level of agreement/disagreement with the following statements?

*Statement 7: Completely ban the entry of polluted vehicles/old vehicles in the city (Overall)*

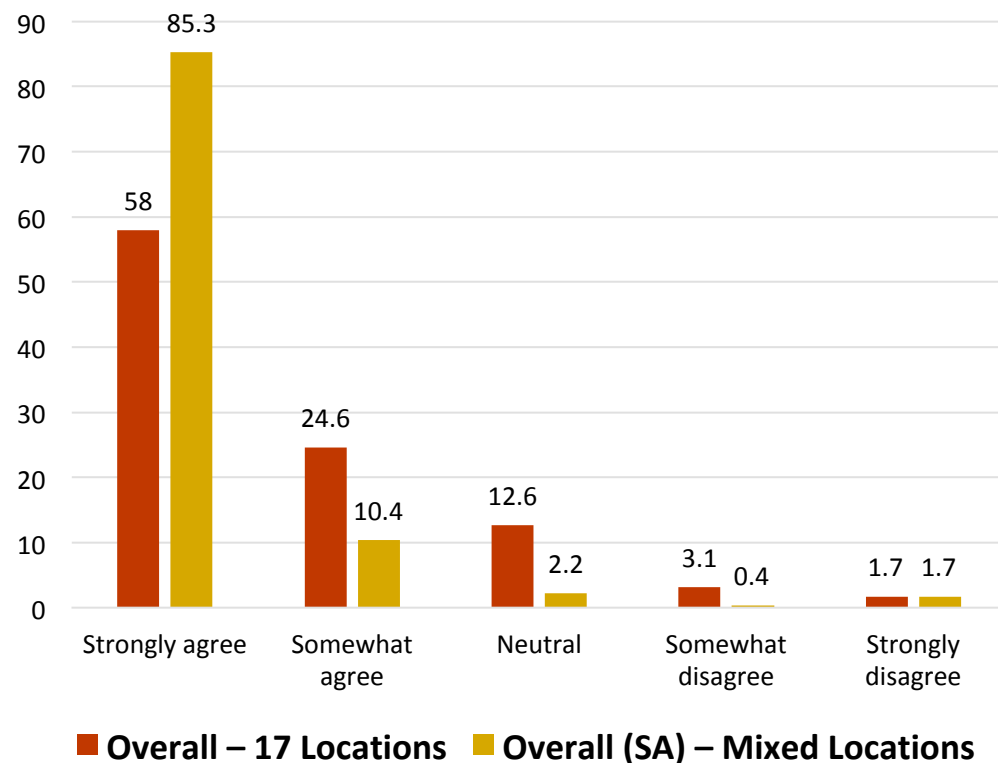


*Statement 8: Government should initiate recycling programs and promote it across the cities (Overall)*

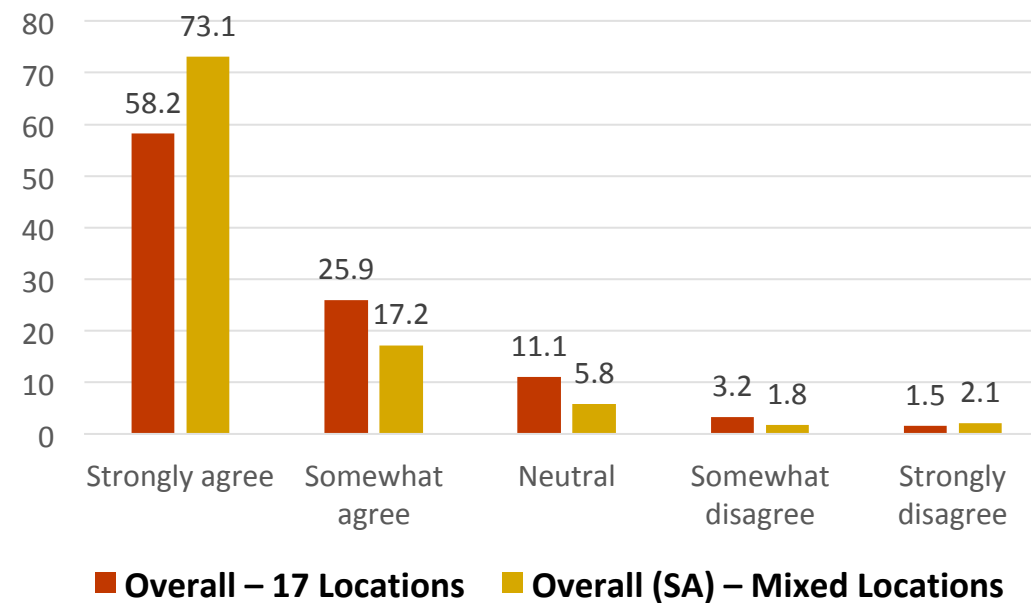


# Please indicate your level of agreement/disagreement with the following statements?

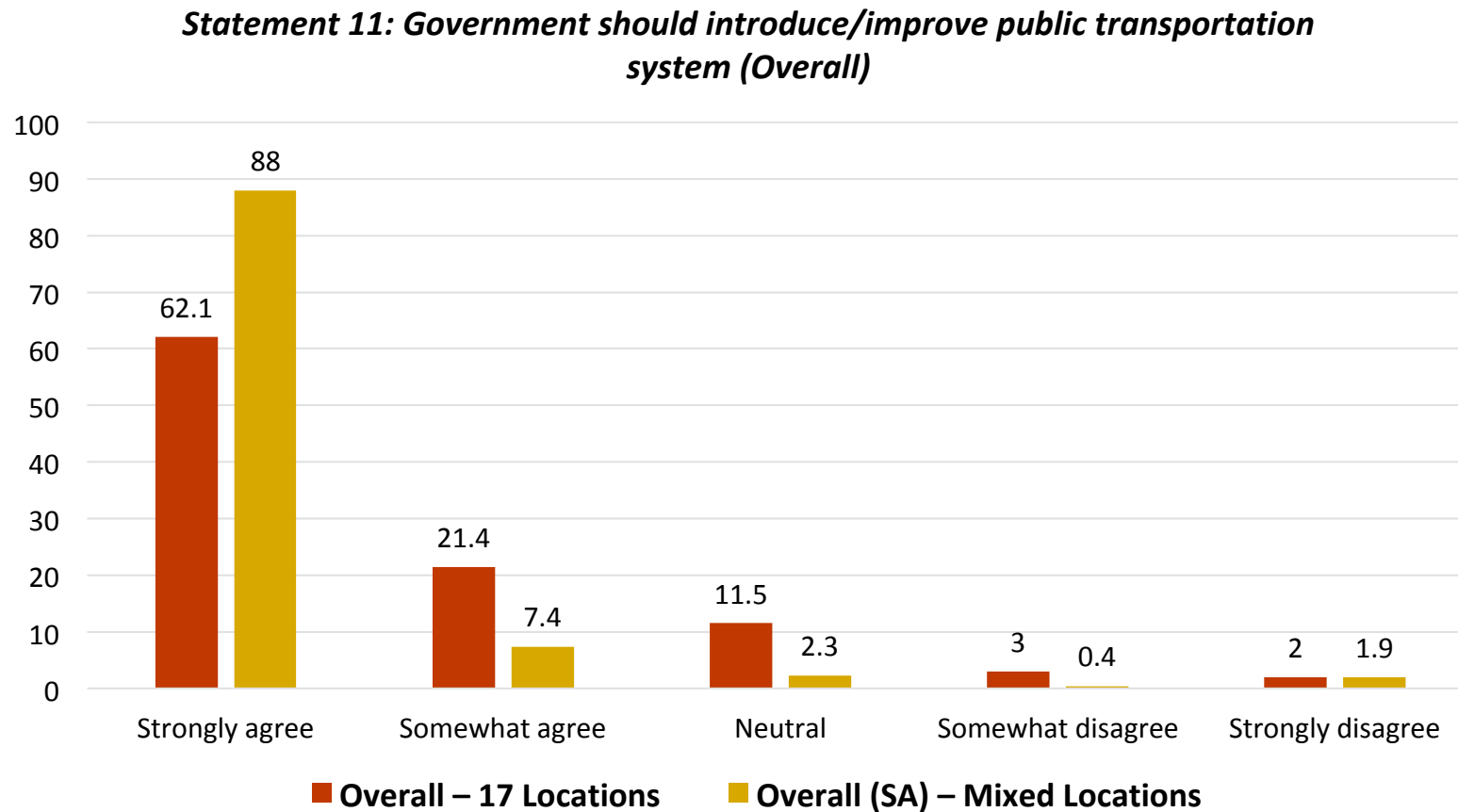
**Statement 9: Government may pressurize power stations and factories to switch to cleaner processes (Overall)**



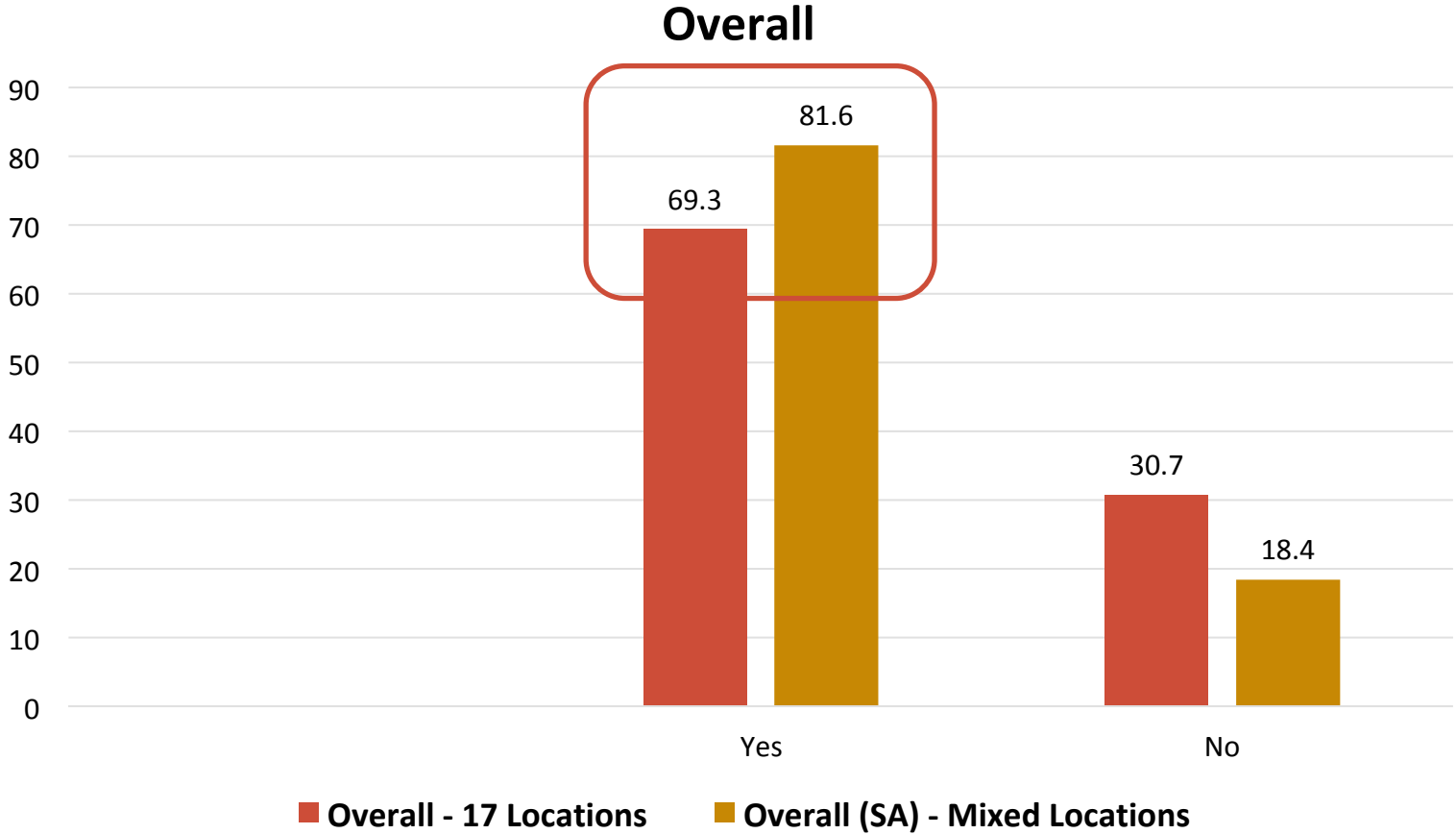
**Statement 10: Government can launch the mass media campaign throughout the city by putting hoardings/banners in the city and giving advertisement in TV/Radio to sensitize citizens about AQ (Overall)**



# Please indicate your level of agreement/disagreement with the following statements?



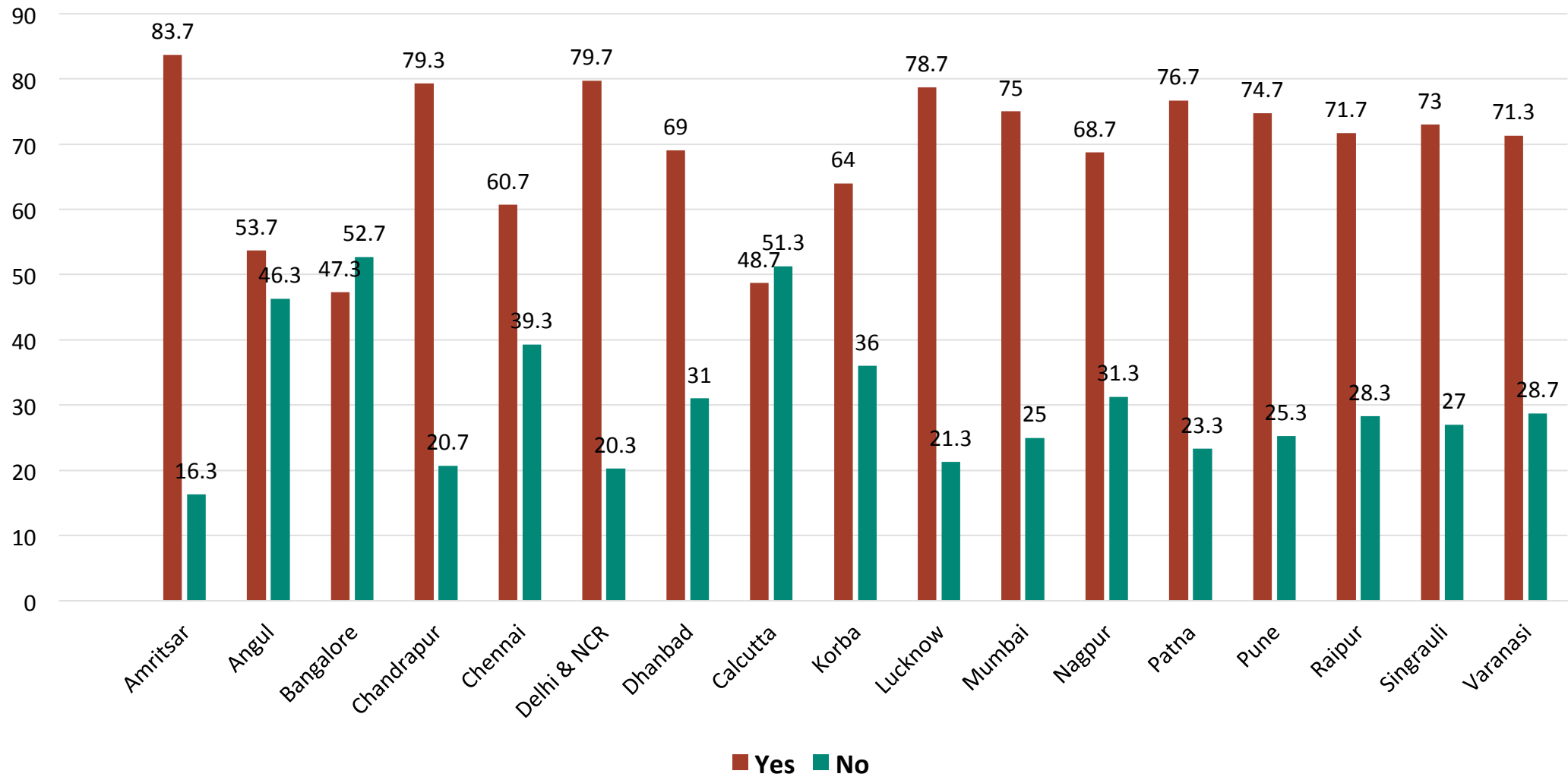
# Have you taken any steps in your individual capacity to mitigate the AQ in your city?



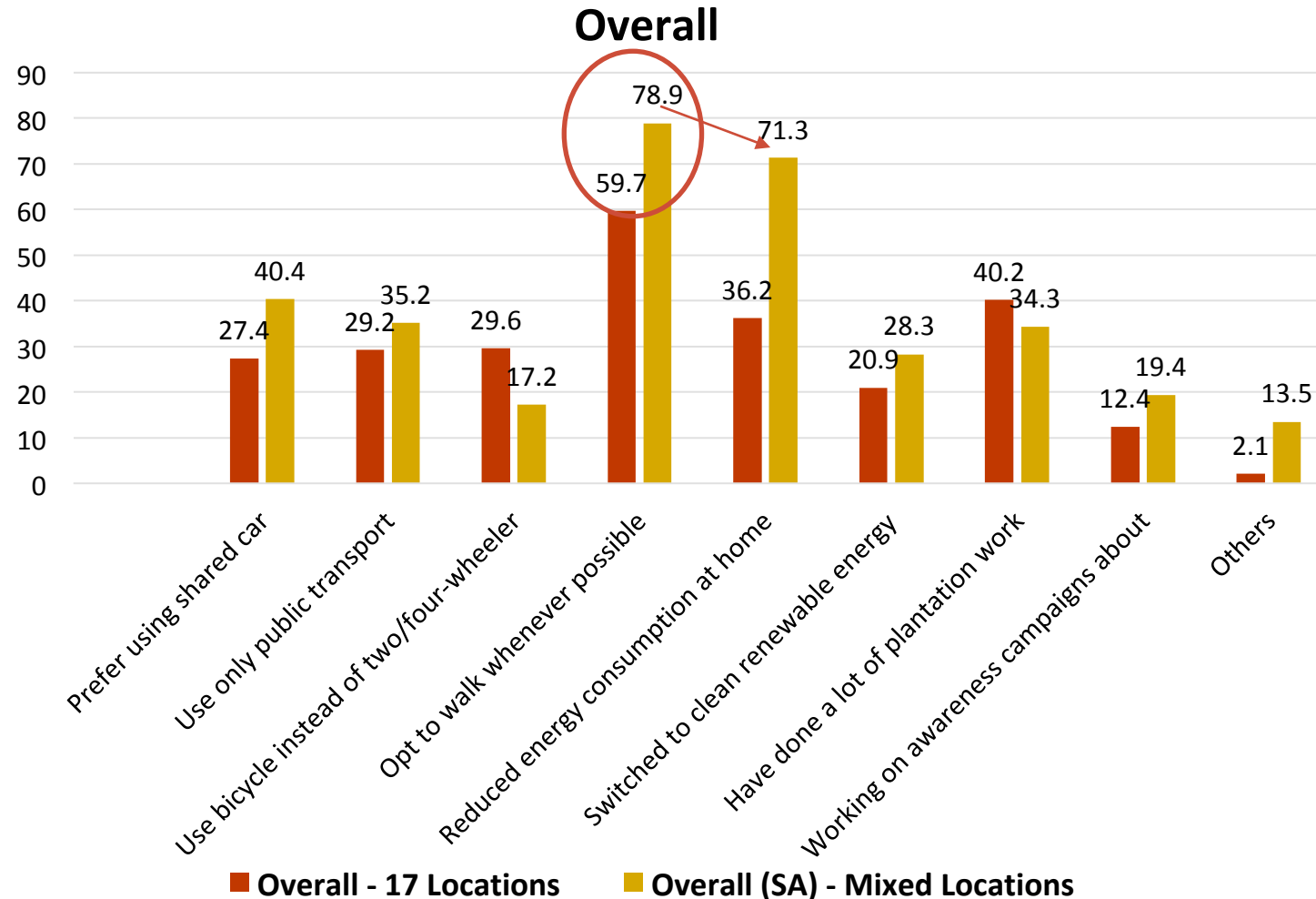
- Respondents who said they take steps on their individual capacity to mitigate the impact of bad air quality constituted 69.3% of the sample.
- The corresponding figures for the SAs was 81.6%.

# Have you taken any steps in your individual capacity to mitigate the AQ in your city?

*Location-wise*



# If yes, what have you done/or you are still doing in cleaning up the environment? (Multiple Responses)



- Majority of the respondents (59.7%, SA: 78.9%) who took steps to mitigate the effects of bad air quality stated that they opted to walk whenever possible.
- 40.2% (SA: 34.3%) said they carried out plantation work to clean up the environment.

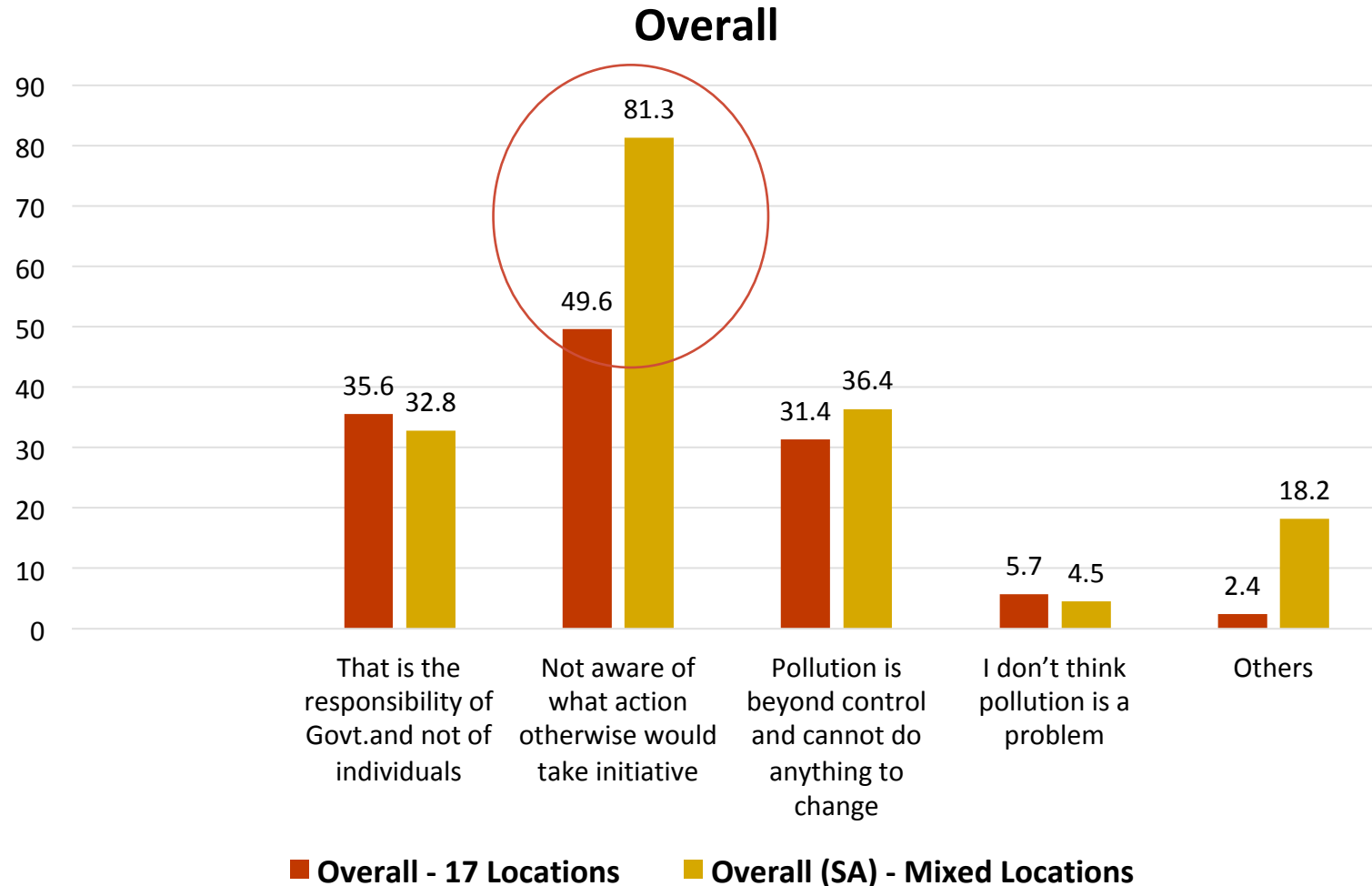


# If yes, what have you done/or you are still doing in cleaning up the environment? (Multiple Responses)

## Location-wise

Location	Percentage of respondents stating:								
	Prefer using shared car	Use only public transport	Use bicycle instead of two/ four-wheeler	Opt to walk whenever possible	Reduced energy consumption at home	Switched to clean renewable energy sources and stopped burning solid fuels	Have done a lot of plantation work	Working on awareness campaigns about the AQ among the masses	Others
Amritsar	31.5	21.9	27.1	60.6	34.7	10.0	46.6	6.0	2.4
Angul	9.9	8.1	8.7	34.8	11.8	3.7	77.6	18.0	0.0
Bangalore	43.0	28.2	18.3	70.4	47.9	22.5	35.9	6.3	2.1
Chandrapur	18.9	63.4	66.0	27.3	19.3	40.8	40.8	21.0	0.4
Chennai	27.5	36.8	27.5	53.8	34.1	16.5	32.4	5.5	4.4
Delhi & NCR	51.5	31.8	14.2	70.3	56.9	24.7	27.2	10.0	1.7
Dhanbad	10.1	44.4	24.2	8.7	11.1	15.5	31.4	33.3	0.0
Calcutta	30.8	40.4	39.7	69.9	42.5	34.2	58.9	35.6	0.0
Korba	8.6	56.3	89.1	75.8	5.5	2.3	67.2	7.0	0.8
Lucknow	11.4	10.2	20.3	72.5	58.9	15.3	55.5	6.8	1.3
Mumbai	33.3	32.0	20.9	64.9	45.8	20.0	35.1	12.4	12.4
Nagpur	24.3	31.1	31.1	56.3	37.9	38.3	43.7	15.5	1.5
Patna	18.7	5.7	16.5	78.7	36.5	23.0	17.8	6.1	0.9
Pune	54.5	16.5	33.0	81.7	67.4	27.7	40.2	12.9	6.3
Raipur	57.2	29.8	25.6	74.0	39.5	12.1	37.2	9.8	0.0
Singrauli	5.9	10.5	12.8	61.2	31.5	12.3	51.6	4.6	0.5
Varanasi	21.5	41.6	46.3	56.1	15.9	29.4	7.5	5.1	0.0

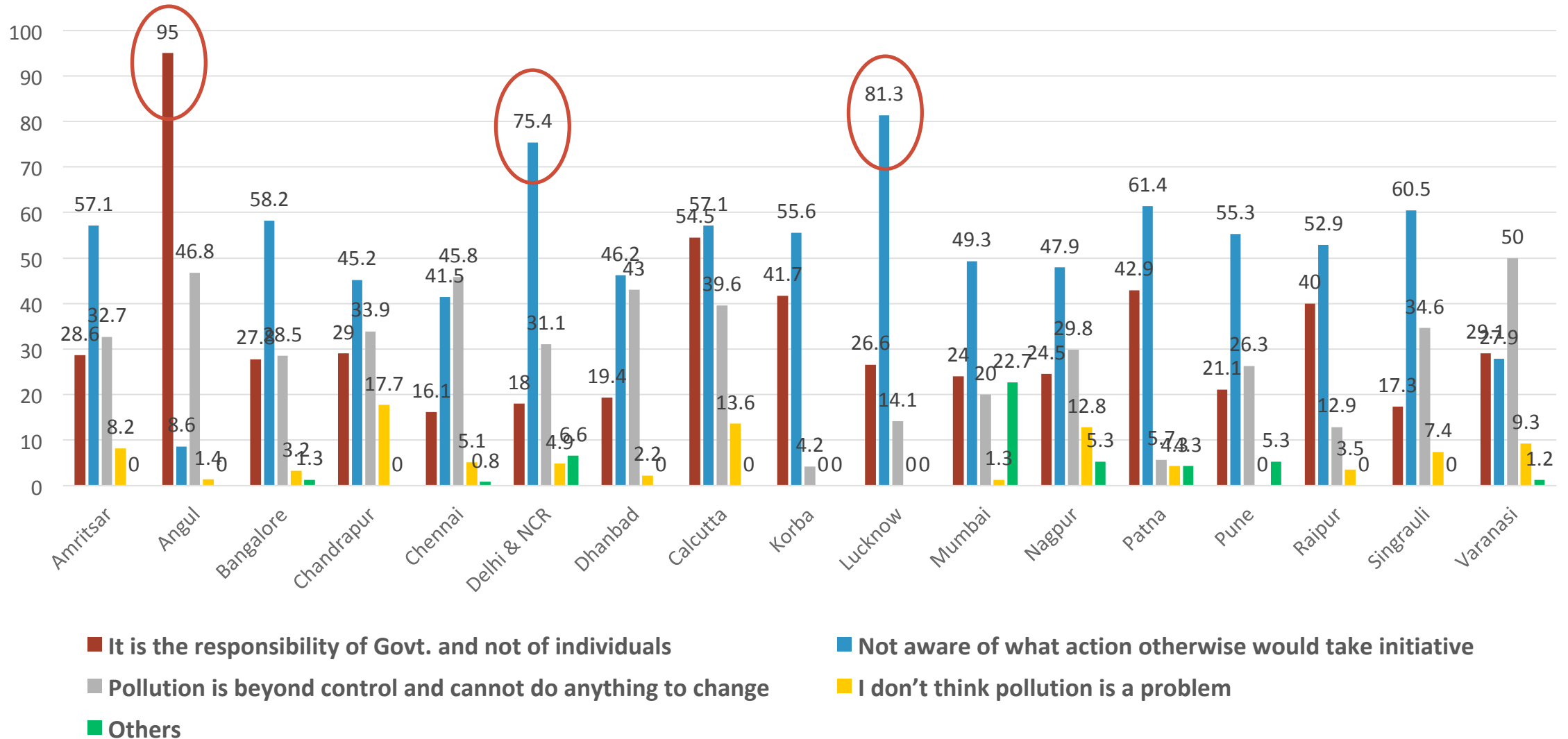
## If no, why have you not done anything so far? (Multiple Responses)



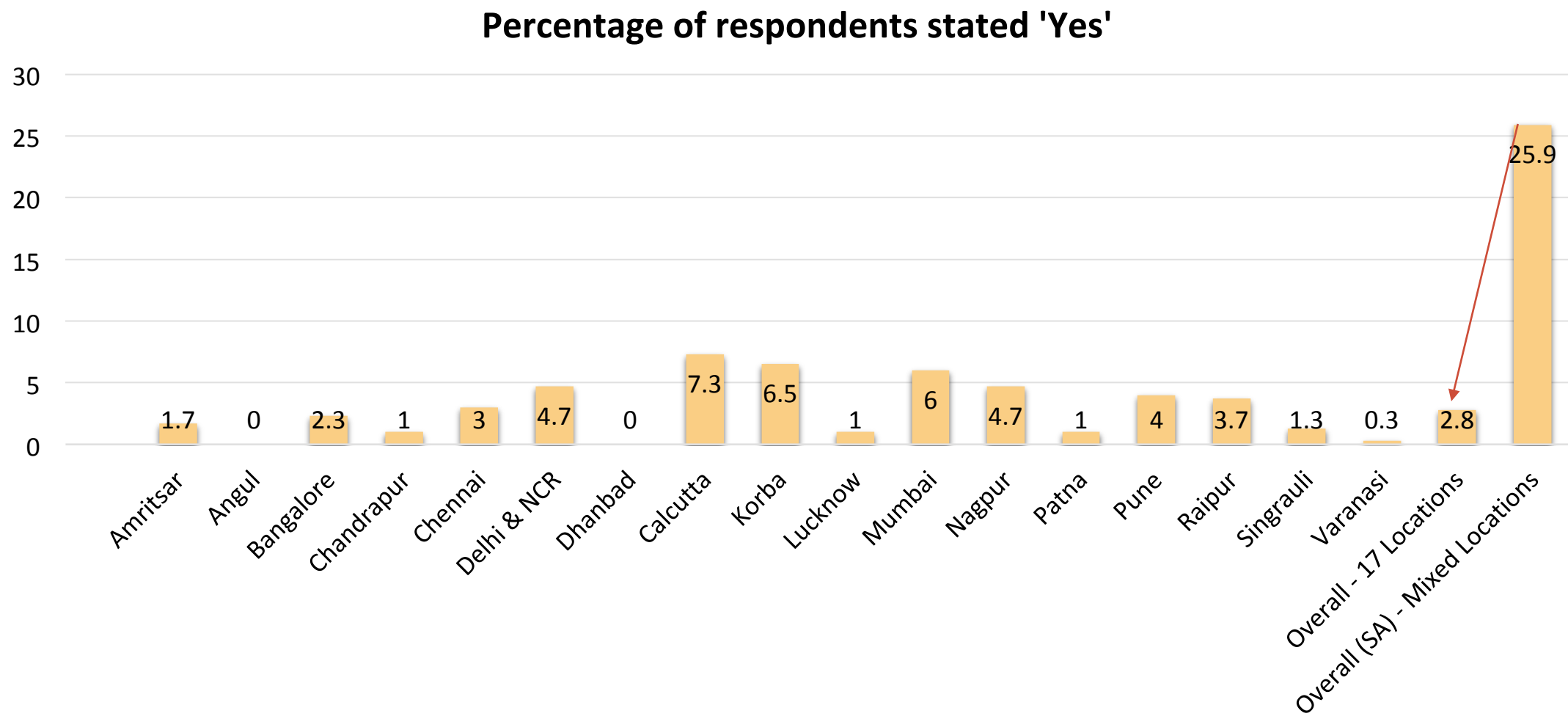
- Maximum respondents (49.6%, SA: 81.3%) who did not take any initiatives on their own stated they were not aware of what action is to be taken.
- Around 35.6% (SA: 32.8%) were of the view that curbing air pollution is the responsibility of the government and not individuals.

# If no, why have you not done anything so far? (Multiple Responses)

*Location-wise*



# Do you know about any Non Governmental Organizations (NGOs)/Community Based Organizations (CBOs) that are working on air pollution in your city?



## Would you be interested in securing more information about AQ?

Location	% of respondents stating Yes.	% of respondents stating No.
Amritsar	87.3	12.7
Angul	99.3	0.7
Bangalore	63.0	37.0
Chandrapur	82.7	17.3
Chennai	92.7	7.3
Delhi & NCR	87.3	12.7
Dhanbad	93.7	6.3
Calcutta	66.3	33.7
Korba	99.5	0.5
Lucknow	98.0	2.0
Mumbai	90.7	9.3
Nagpur	85.3	14.7
Patna	99.0	1.0
Pune	88.3	11.7
Raipur	64.7	35.3
Singrauli	96.3	3.7
Varanasi	63.3	36.7
<b>Overall – 17 Locations</b>	<b>85.5</b>	<b>14.5</b>
<b>Overall (SA) – Mixed Locations</b>	<b>86.5</b>	<b>13.5</b>

The slide features a central dark red horizontal bar. To the left of this bar, there are two large, overlapping triangular shapes in shades of yellow and orange, creating a dynamic, abstract background element.

Thank You!